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ABSTRACT

This document consists of a learning activity packet (LAP) for the student and an instructor's guide for the teacher. The LAP is intended to acquaint occupational home economics students with the proper use and care of various pieces of commercial cooking equipment. Illustrated information sheets and learning activities are provided on each of the following pieces of equipment: the slicer, food (buffalo) chopper, food grinder, mixer, can opener, steam table, baker's table, coffee maker, and platform scale. The packet also contains a lesson on safety, sanitation, and costs. The instructor's guide begins with an instructional matrix in which the information sheets and written activities contained in the LAP and the written test items included in the instructor's guide are cross-referenced to the knowledge and skill objectives addressed by the materials. This is followed by a series of notes to instructors on the LAP series and suggested instructional procedures for use in conducting individual and group enrichment activities. A unit test and answer key are included. (MN)

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LEARNING
ACTIVITY
PACK

4.2

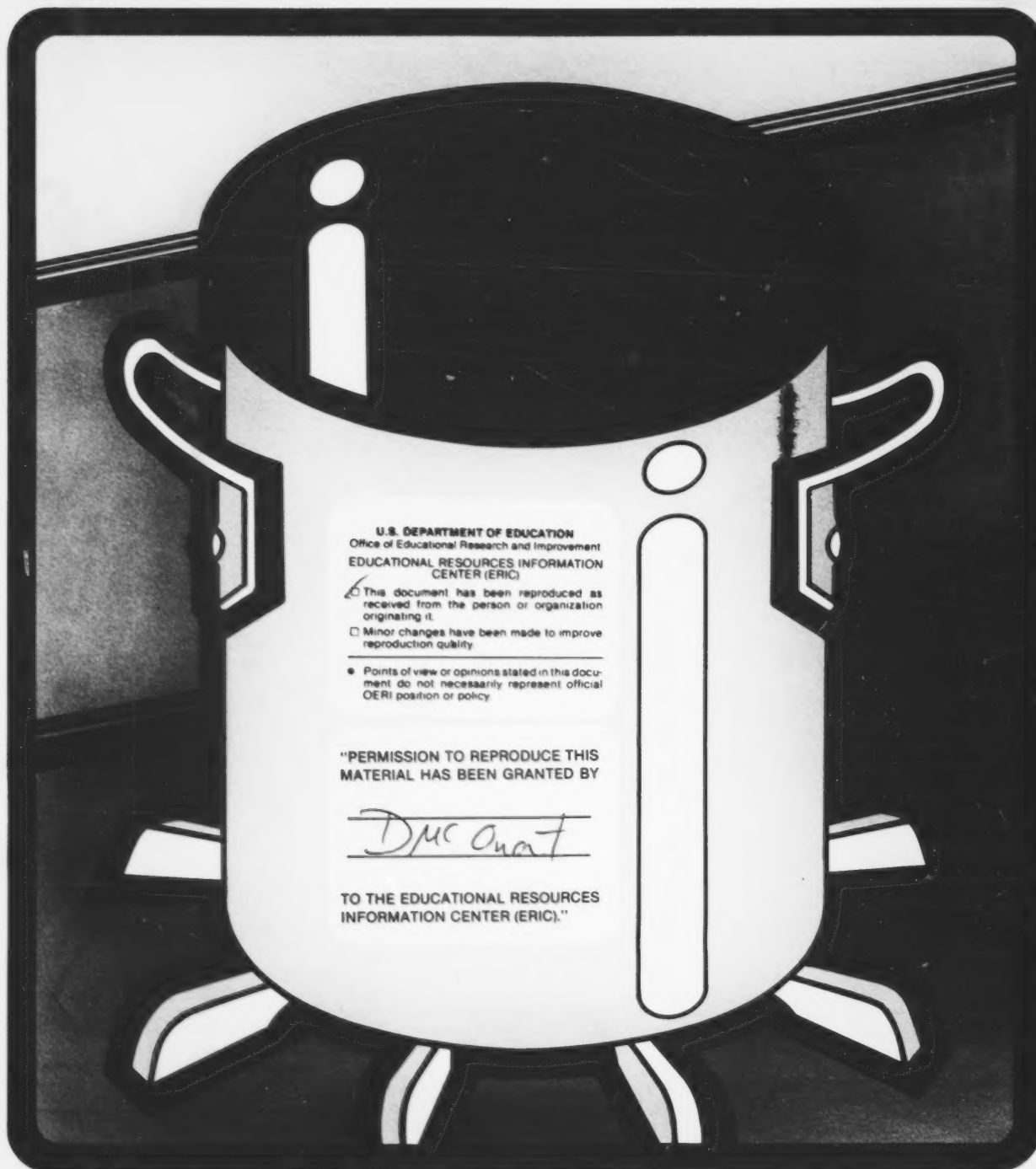
SECTION 4

Proper Use and Care of Miscellaneous Equipment

Equipment Handling, Operation, and Maintenance

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LEARNING

ACTIVITY

PAGE

4.2

SECTION 4

Proper Use and Care of Miscellaneous Equipment

Equipment Handling, Operation, and Maintenance

State of Florida
Department of Education
Ralph D. Turlington, Commissioner of Education
Tallahassee, Florida
Affirmative action/equal opportunity employer

Division of Vocational, Adult, and Community Education

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Purpose and Contents

Purpose

The purpose of LAP 4.2 is to prepare you to operate and care for several pieces of commercial cooking equipment. Proper operation and regular cleaning and maintenance of kitchen equipment are critical in order to prevent accidents, breakdowns, and costly repairs. Operating equipment properly also means working safely and efficiently. Remember, in the kitchen as every place else, an ounce of prevention is worth a pound of cure.

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Introduction

Written Test

You will be able to pass the written test for LAP 4.2 when you can successfully choose the correct phrases to complete statements about:

1. Safety, sanitation, and costs. (All 8 must be correct.)
2. The slicer. (All 5 must be correct.)
3. The food chopper. (All 3 must be correct.)
4. The food grinder. (All 3 must be correct.)
5. The mixer. (All 6 must be correct.)
6. The can opener. (All 3 must be correct.)
7. The steam table. (All 3 must be correct.)
8. Coffee-making equipment. (All 4 must be correct.)

If you feel you know enough to pass the written test for LAP 4.2 before studying it, talk with your instructor.

Skills Test

You will be able to pass the skills test for LAP 4.2 when you complete the following successfully:

1. Operate the slicer. The slices must be the proper thickness or weight and must be whole. A rhythmic motion must be used.
2. Clean the slicer. All parts must be clean and free from food or grease.
3. Operate the food chopper. An appropriate amount of food must be placed in the chopping bowl and the food must be chopped to the desired size.
4. Clean the food chopper. All parts must be clean and free from food or grease.
5. Operate the food grinder. The meat must be ground to proper size and appropriate pressure must be applied to the feed stamper.
6. Clean the food grinder. All parts must be clean and free from food or grease.
7. Operate the mixer. The ingredients must be properly mixed.
8. Clean the mixer. All parts must be clean and free from food or grease.
9. Operate the manual can opener. The can must be cut evenly, without sharp points or jagged edges.

Introduction (continued)

10. Clean the manual can opener. All parts must be clean and free from food particles.
11. Operate the steam table. The food must be held at the correct temperature.
12. Clean the steam table. All parts must be clean and free from food or grease.
13. Clean the baker's table. All parts must be clean and free from food or grease.
14. Clean the coffee urn. All parts must be clean and free from oil or deposits.
15. Operate the platform scale. All items must be weighed accurately.

REMEMBER . . . Your final performance will also be judged on how well you:

- organize your work area for efficient production before starting
- follow the steps correctly in the right order,
- follow safety precautions and sanitary procedures, and
- clean your work area when you are finished.

If you feel you know enough to pass the skills test for LAP 4.2 before practicing the skills, talk with your instructor.

Learning Steps

To help you pass the written and skills tests for this LAP, you should follow these learning steps in order. There are two kinds of activities you will be asked to do:

Written activities will prepare you for the **written test**. They should all be done on a separate sheet of paper. The answers for these activities are in the back of this LAP. **Do not write in this LAP!**

Practice Checklist activities will prepare you for the **skills test**. These will be done in the kitchen or dining area. Check with your instructor before beginning these activities.

Special Note: In this LAP the Practice Checklists provide the primary means of instruction for these activities. First, read and study each checklist to learn the procedure and then practice the steps.

1. Read and study **Information Sheet 1: Safety, Sanitation, and Costs**.
2. Complete **Activity 1: Safety, Sanitation, and Costs**. Check your answers.

Introduction (continued)

3. Read and Study **Information Sheet 2**: The Slicer.
4. Complete **Activity 2A**: The Slicer. Check your answers.
5. Complete **Activity 2B**: Practice Checklist—Operate the Slicer. See the special note above.
6. Complete **Activity 2C**: Practice Checklist—Clean the Slicer. See the special note.
7. Read and study **Information Sheet 3**: The Food (Buffalo) Chopper.
8. Complete **Activity 3A**: The Food Chopper. Check your answers.
9. Complete **Activity 3B**: Practice Checklist—Operate the Food Chopper. See the special note.
10. Complete **Activity 3C**: Practice Checklist—Clean the Food Chopper. See the special note.
11. Read and study **Information Sheet 4**: The Food Grinder.
12. Complete **Activity 4A**: The Food Grinder. Check your answers.
13. Complete **Activity 4B**: Practice Checklist—Operate the Food Grinder. See the special note.
14. Complete **Activity 4C**: Practice Checklist—Clean the Food Grinder. See the special note.
15. Read and study **Information Sheet 5**: The Mixer.
16. Complete **Activity 5A**: The Mixer. Check your answers.
17. Complete **Activity 5B**: Practice Checklist—Operate the Mixer. See the special note.
18. Complete **Activity 5C**: Practice Checklist—Clean the Mixer. See the special note.
19. Read and study **Information Sheet 6**: The Can Opener.
20. Complete **Activity 6A**: The Can Opener. Check your answers.
21. Complete **Activity 6B**: Practice Checklist—Operate the Manual Can Opener. See the special note.
22. Complete **Activity 6C**: Practice Checklist—Clean the Manual Can Opener. See the special note.
23. Read and study **Information Sheet 7**: The Steam Table.
24. Complete **Activity 7A**: The Steam Table. Check your answers.

Introduction (continued)

25. Complete **Activity 7B**: Practice Checklist—Operate the Steam Table. See the special note.
26. Complete **Activity 7C**: Practice Checklist—Clean the Steam Table. See the special note.
27. Read and study **Information Sheet 8**: The Baker's Table.
28. Complete **Activity 8**: Practice Checklist—Clean the Baker's Table. See the special note.
29. Read and study **Information Sheet 9**: Coffee-Making Equipment.
30. Complete **Activity 9A**: Coffee-Making Equipment. Check your answers.
31. Complete **Activity 9B**: Practice Checklist—Clean the Coffee Urn. See the special note.
32. Read and study **Information Sheet 10**: The Platform Scale.
33. Complete **Activity 10**: Practice Checklist—Operate the Platform Scale. See the special note.
34. Get **Written Test 4.2** from your instructor and complete it. If you are successful, go on to Step 35; if not, talk with your instructor.
35. Have your instructor evaluate you on **Skills Test 4.2**. If you are successful, you have completed this LAP; if not, talk with your instructor.

Information Sheet 1

Safety, Sanitation, and Costs



The proper use and care of food service equipment is a necessity for efficient, sanitary preparation and service. All employees should be able to use and clean correctly equipment they come in daily contact with. To ensure employee safety and acceptably prepared food items, each employee must receive in-depth training on each piece of equipment.

In this LAP, we will be discussing the operating and cleaning procedures for the slicer, food (buffalo) chopper, food grinder, mixer, can opener, and steam table. We will also cover the cleaning of the baker's table and coffee urn and operation of the platform scale.

When working with commercial cooking equipment and utensils, it is important to keep three things in mind: safety, sanitation, and costs.

Safety

Safe working habits are important for your own well-being as well as that of your fellow workers. Following instructions carefully will help you avoid many possible accidents. If you are not sure about proper methods for operating or cleaning kitchen equipment, be sure to ask your supervisor for assistance. When you don't know what you're doing, it's better to ask for help and be sure than to go ahead and possibly hurt someone. You must learn how to work safely and confidently with these tools and procedures. If you don't, someone will soon pay the price for your lack of care or knowledge. For more information on how to work safely with kitchen equipment, see LAP 2.1 *Principles of Safety*.

Sanitation

Sanitation and health standards are very important to keep in mind when operating, cleaning, and storing food service equipment. When you are working with any type of food, cleanliness is essential in order to prevent the growth and spread of germs or disease. Cleaning procedures should be followed carefully for your protection and for your customers' health and safety. Equipment that has not been properly cleaned and sanitized can spread diseases or cause illness, which can leave you open for a lawsuit and possibly cause the closing of the restaurant. For more information on health standards and proper sanitation, see the LAPs in Section 3.0: Personal Hygiene and Sanitation.

Costs

When safety precautions and sanitary procedures are not followed, accidents and injuries occur. These accidents can be costly in terms of time lost from work and expensive equipment repairs and/or replacement; customer health problems and lost patronage may even result in lawsuits and increased insurance rates. Being at fault can cost you your job and affect your possibilities for future employment. Remember, using kitchen equipment safely and properly is extremely important. Before using any type of kitchen equipment, discuss safety precautions with your instructor and consult the manufacturer's service manual.

Knowing how to operate commercial kitchen equipment properly also can save valuable preparation time and make your job easier. For example, by using an automatic slicer instead of a knife and cutting board to slice cheese, you save time, energy, and money. By cutting the slices precisely, the slicer makes the best use of the food product and results in more attractive, evenly sliced cheese.

Proper use and cleaning will help maintain equipment in good working order and help prevent accidents, equipment failure, and costly repairs and/or replacement.

Remember: If you don't know what you are doing, don't do it!

**Important Notice about
Operating and Cleaning
Equipment**

The guidelines for operation and cleaning described in this module are general guidelines. Always read and follow manufacturer's specific instructions/directions for individual pieces of equipment. Be sure to ask your instructor for these materials before attempting to operate or clean any type of kitchen equipment.

Activity 1

Safety, Sanitation, and Costs



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.



1. When working with commercial cooking equipment and utensils, keep in mind _____.
 - sanitation
 - costs
 - safety
 - sanitation, costs, and safety
2. Safe working habits are important for _____.
 - yourself
 - your fellow workers
 - your employers
 - yourself, your fellow workers, and your employers
3. If you are ever uncertain as to the proper methods for operating or cleaning equipment, you should _____.
 - ask a fellow worker how to do it
 - ask your supervisor for assistance
 - try it but be very careful
 - let someone else do it
4. When working with any type of food, _____ is essential in order to prevent the spread and growth of germs or disease.
 - cleanliness
 - safety
 - sweeping
 - efficiency
5. Not following proper safety precautions and sanitary procedures in the commercial kitchen can be costly in terms of _____.
 - lost customers
 - damaged equipment
 - injured workers
 - lost customers, damaged equipment, and injured workers
6. Knowing how to operate equipment properly can save you time, energy, and _____.
 - injuries
 - experience
 - money
 - customers
7. When working with equipment in a commercial kitchen, if you don't know what you are doing, _____.
 - give it a try
 - don't do it
 - make a guess
 - talk a friend into doing it

Activity 1 (continued)
Safety, Sanitation, and Costs

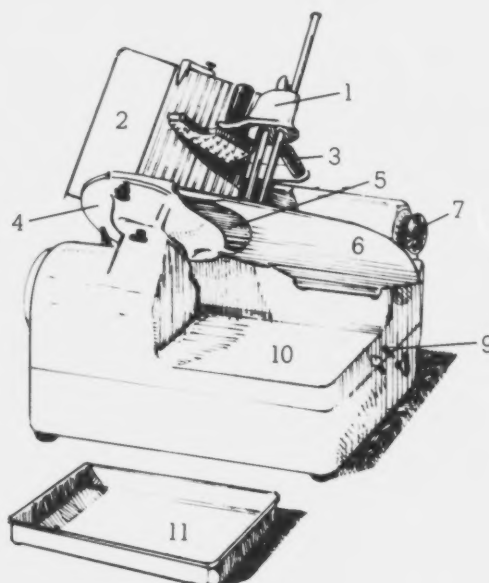
8. Before using any type of kitchen equipment, discuss safety precautions with your supervisor and consult _____.
- the manufacturer's service manual
 - your vocational director
 - the National Electrical Code
 - another student

Check your answers in the back of this LAP. If you missed any, review Information Sheet 1.

Information Sheet 2

The Slicer

Parts and their Functions



1. **Food holder:** holds the food securely on the carriage
2. **Food carriage:** holds the food at a 90° angle to the blade and slides along a rod in the slicer as it is moved back and forth by the operator. The only safe way to move the carriage is to push or pull it, using the handle located under the carriage.
3. **Carriage handle:** handle used to push or pull the food carriage. It is the *only* part that should be used to move the food carriage.
4. **Blade guard:** covers the top part of the blade so that the only cutting edge of the blade is exposed to the food to be sliced. The guard is removable and must be cleaned after each use. There is a blade guard on each side of the blade.
5. **Blade:** circular steel disc which cuts the food (at a 90° angle) as it moves down the carriage
6. **Gauge plate:** controls the distance between the blade and carriage to control slice thickness
7. **Blade control indicator knob:** used for adjusting the gauge plate. The numbers on the knob are used to control the thickness of the slices.
8. **Scrap tray:** (not visible) removable tray that catches small pieces of food; must be cleaned after each use
9. **Power switch:** used for turning the slicer on and off
10. **Receiving platform:** area where the slices of food fall
11. **Receiving tray:** tray placed on receiving platform

Information Sheet 2 (continued)

The Slicer

Use of the Slicer

The slicer is used to cut hot or cold meats, cheeses, fruits, vegetables, and other foods into neat, even slices. It can also be used to shred foods like cabbage and lettuce. Slicers generally are operated manually, although some types have an automatic option. The thickness of the slice may be changed by adjusting the blade control indicator knob on the front of the slicer. The numbers on the knob do *not* indicate specific measurements but can be used for estimating the thickness of the slice—the higher the number, the thicker the slice.

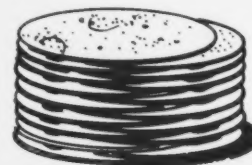
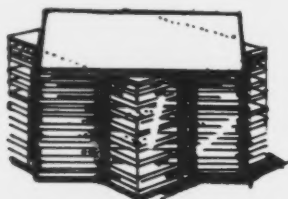


Food is sliced either to a certain thickness or a certain weight. Meat is often sliced as thin as possible for making sandwiches. This makes the meat easier to chew and is more economical for the food service. This is called shaved meat. Other times, food is thick-sliced to a certain weight because only one or two slices are to be served per order.

Safety Precaution! When the slicer is not in use, turn the blade control indicator knob *clockwise* as far as it will go. Line up the cutting edge with the gauge plate to prevent accidental cutting.

Cross Stacking

When you are using a slicer you will need to cross stack the slices you are cutting. Cross stacking is the process of stacking meat or cheese slices at different angles so they can be picked up one slice at a time.



This procedure requires the efficient and coordinated use of both hands. While you slice the meat or cheese with the right hand, you catch and cross stack the slices with the left hand.

Coordination and timing are important. As the right hand pushes the food carriage forward to slice the food, the left hand catches the slices. Then you cross stack, or layer, the slices in a pan, using the left hand, while the right hand draws back the food carriage to begin the next slice.

This process can save time because the food does not have to be restacked for handling and storage. It also prevents slices from breaking apart and being wasted.

Cross stacking may be slow at first, as it takes time to develop the necessary coordination for your hands to perform two different functions. However, with practice, you will soon develop a smooth and regular rhythm of hand movement and body coordination. When you

Information Sheet 2 (continued)
The Slicer

have mastered this skill, you will be well on your way to using the slicer most efficiently.

Note: Before you can practice cross stacking, you will need to get checked out on use of the slicer. Ask your instructor to demonstrate the cross stacking process for you.

**Operating and Cleaning
the Slicer**

The Practice Checklists found in Activities 2B and 2C describe the step-by-step procedures for operating (2B) and cleaning (2C) the slicer. Read and study the procedures before you practice the steps.

Activity 2A

The Slicer



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.



1. The slicer can be used to slice _____ into neat even slices.
 - cabbage and lettuce
 - meat and cheese
 - fish and shellfish
 - cabbage, lettuce, meat, cheese, fish, and shellfish
2. Cabbage and lettuce can be _____ on the slicer.
 - shredded
 - sliced
 - diced
 - minced
3. The thickness of the slice can be changed by adjusting the _____.
 - food holder
 - blade guard
 - blade control indicator knob
 - gauge plate
4. The blade control indicator knob should be turned clockwise as far as it will go _____.
 - after each use
 - before using
 - during use
 - twice a day
5. Cross stacking slices of food can _____.
 - save storage and handling time
 - require practice
 - prevent waste
 - prevent waste, save storage and handling time, and require practice

Check your answers in the back of this LAP. If you missed any, review Information Sheet 2.

Activity 2B

Practice Checklist: Operate the Slicer



Directions

First, read and study the steps for operating the slicer. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.



Improper use of this equipment may be extremely hazardous. Before using it, discuss safety procedures with your instructor and consult the manufacturer's service manual. Keep the manufacturer's directions handy when first learning this skill.

Steps



1. Plug the slicer into a wall outlet. **Caution:** Keep the unit unplugged when not in operation. Check the knife guard before putting the plug into the socket. A loose blade guard can nick the cutting blade and allow chips of metal to get into the food.
2. Wash and dry your hands.
3. Get a portion scale* and the product to be sliced.
4. Place the food on the food carriage and secure it with the food holder. Butt the food against the end plate of the food carriage so it will be stable.
5. Move the food carriage using the carriage handle, to make certain it moves freely. **Caution:** Never use the slicer when the knife guard is not in position.
6. Set the blade control indicator knob to the desired number.
7. Turn the machine On.
8. Slice 2-3 test slices of the product by holding the carriage handle with your right hand and moving the food back and forth across the blade. At the same time, catch the slices in the open palm of your left hand. **Caution:** Keep hands and utensils away from the blade when the unit is operating.
9. Turn the machine Off.
10. Examine the food for proper thickness or weight.
11. Reset the blade control indicator knob as needed.
12. Slice the desired number of portions either manually or using the automatic control. **Note:** Manual machines must be operated with a rhythmic motion. Do not bang the carriage. Never leave an automatic carriage unattended.
13. When finished, turn the switch Off; turn the blade control indicator knob clockwise to zero and unplug the slicer.

*See LAP 5.1b *Reading and Converting Recipes; Weighing and Measuring* on how to operate the portion scale if you don't know.

Activity 2B (continued)
Practice Checklist: Operate the Slicer

Standards for Evaluation

- ✓
-
1. Are the slices the proper thickness or weight?
 2. Are the slices whole and not falling apart?
 3. Was a rhythmic motion used in slicing?
 4. Were all the safety precautions followed?
 5. Were all the sanitation procedures followed?
-

Activity 2C

Practice Checklist: Clean the Slicer



Directions

First, read and study the steps for cleaning the slicer. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

1. Assemble these supplies in your work area: warm soapy water, chemical sanitizer, 1 washing cloth, and 1 rinsing cloth.
2. Turn the machine Off, if necessary
3. Unplug the slicer.
4. Set the blade control indicator knob to zero (0).
5. Loosen the knob at the bottom of the food carriage in order to remove the carriage.
6. Loosen the knob at the center of blade to remove the blade guards.
7. Remove the scrap tray.
8. Take the parts to the pot and pan sink.
9. Scrub and rinse the parts.
10. Let the parts air dry.
11. Use a soapy cloth to wipe the blade and machine shell.
Caution: Be careful, the blade is sharp.
12. Use a rinse cloth to rinse the blade and machine shell.
13. Sanitize the blade according to the directions on the chemical sanitizer.
14. Allow the blade to air dry.
15. Clean the body of the slicer
 - a. Wipe clean, using hot soapy water and a cloth
 - b. Rinse, using hot water and a clean cloth.
16. Replace the scrap tray.
17. Replace the front blade guard immediately after cleaning the body of the slicer.
18. Tighten the blade guard knob.
19. Replace the back blade guard.
20. Tighten the blade guard knob.
21. Replace the food carriage.
22. Tighten the food carriage knob.
23. Turn Set the blade control indicator knob clockwise to zero (0).
Note: Never leave the blade exposed longer than necessary!
24. Cover the slicer with a protective cloth or plastic sheet after each use.

DANGER

DANGER

Activity 2C (continued)
Practice Checklist: Clean the Slicer

Standards for Evaluation

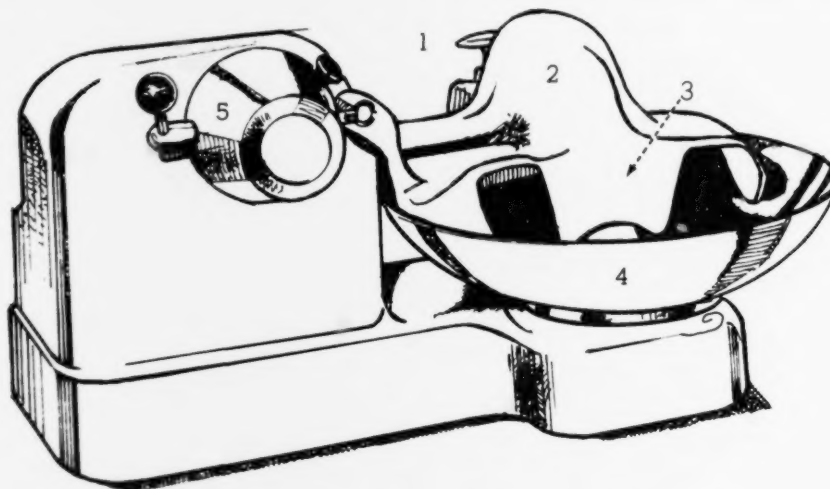
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1. Are all parts clean and free from food particles or grease?
 2. Were all safety precautions followed?
 3. Were all sanitary procedures followed?
-

Information Sheet 3

The Food (Buffalo) Chopper

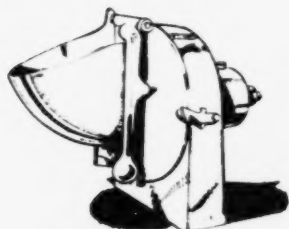


Parts and their Functions

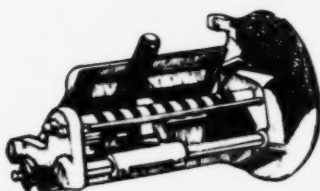


1. **Safety catch:** prevents cover from being raised when the power is on. It must be in the locked position or the chopper will not run.
2. **Bowl cover:** prevents food from flying out during operation
3. **Knives:** (not visible) metal blades that chop the food. A comb (blade guide) beneath the bowl cover keeps the blades clean during chopping.
4. **Bowl:** contains the food to be chopped
5. **Attachment hub:** site for connecting optional attachments to the motor for slicing, dicing, grinding, and shredding

Optional Attachments



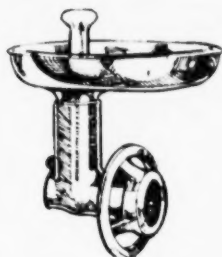
Vegetable slicer: used for slicing, shredding, and grating vegetables; several interchangeable plates are used for the different functions



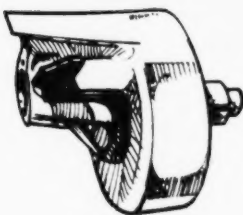
Power dicer: used for cutting and dicing different size cubes of fruits and vegetables; good for making french fries

Information Sheet 3 (continued)

The Food (Buffalo) Chopper



Food grinder: used for grinding food (usually meat) (See Information Sheet 4 of this LAP for information on the food grinder.)



Speed drive: used to increase the speed of any of the attachments; most commonly used with the vegetable slicer

Use of the Food Chopper

The food chopper is one of the oldest pieces of energy-saving machinery found in modern food service kitchens. It is a valuable tool because it can save up to 95% of the preparation time it normally takes to cut food by hand. The optional attachments make the food chopper a versatile piece of equipment.

On some choppers, the food bowl is locked on to the base plate; on other models the bowl rotates when the machine is switched on. This latter type may be preferable because it circulates the food to give a more uniform chopping. If you are chopping and mixing several different foods together (for example, for guacamole), the rotating bowl helps chop and blend several foods quickly and evenly.

The food chopper cannot produce special size or consistent size pieces of food such as dices and julienne.

DANGER

Operating and Cleaning the Food Chopper

Safety Precaution: Never put your hands, fingers, or any utensils in the bowl when the chopper is operating! Turn the chopper off first.

The Practice Checklists found in Activities 3B and 3C describe the step-by-step procedures for operating (3B) and cleaning (3C) the food chopper. Read and study the procedures before you practice the steps.

Activity 3A

The Food Chopper



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.

1. The food chopper is a valuable kitchen tool because it can _____.
 - save you energy
 - perform many tasks with the optional attachments
 - save time
 - save you energy, perform many tasks with the optional attachments, and save time
2. To help chop and mix several foods together at one time, many food choppers have a _____.
 - hub attachment
 - rotating bowl
 - speed drive
 - power dicer
3. The only time you put a utensil into the chopper bowl is when _____.
 - food is falling over the sides
 - food has caked on the side
 - the chopper is turned off and the bowl and knives have stopped rotating
 - you are being very careful



Check your answers in the back of this LAP. If you missed any, review Information Sheet 3.

Activity 3B

Practice Checklist: Operate the Food Chopper



Directions

First, read and study the steps for operating the food chopper. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.



Improper use of this equipment may be extremely hazardous. Before using it, discuss safety procedures with your instructor and consult the manufacturer's service manual. Keep the manufacturer's directions handy when first learning this skill.

Steps



- ✓
1. Plug the food chopper into a wall outlet.
2. Wash and dry your hands.
3. Get the product to be chopped.
4. Fill the bowl $\frac{1}{3}$ full of the food to be chopped.
5. Close the bowl cover and turn the safety catch clockwise to lock it in place. **Note:** The chopper will not operate unless the safety catch is locked.
6. Turn the machine On.
7. You may add more food to the bowl while the chopper is on. Do not fill the bowl more than $\frac{2}{3}$ full. If there is too much food in the bowl it will not be chopped evenly. **Caution:** Never put your hands under the cover when you are adding food.
8. Turn the machine Off and unplug it. **Caution:** Do not attempt to lift the cover until the knives have stopped moving.
9. Turn the safety catch counterclockwise to unlock the cover. Pull the safety catch up.
10. Open the cover.
11. Remove the comb (blade guide). (Ask your instructor to demonstrate.)
12. Unscrew the hand knob and slide off the knife (blade) assembly.
13. Remove the food from the bowl.

Standards for Evaluation

- ✓
1. Was an appropriate amount of food placed in the chopping bowl?
2. Is the food chopped to the desired size?
3. Were all safety precautions followed?
4. Were all sanitation procedures followed?

Activity 3C

Practice Checklist: Clean the Food Chopper



Directions

First, read and study the steps for cleaning the food chopper. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

1. Assemble these supplies in your work area: warm soapy water, hand brush, 1 washing cloth, and 1 rinsing cloth.
2. Turn the machine Off, if necessary.
3. Wait for blades to stop, if necessary.
4. Unplug the food chopper.
5. Turn the safety catch counterclockwise, and pull.
6. Raise the bowl cover to an upright position.
7. Remove the comb (blade guide).
 - a. Lift up the comb.
 - b. Place the comb in the bowl.
8. Remove the blade. **Caution:** Handle the blade with care.
 - a. Unscrew the hand knob on the blade shaft.
 - b. Grasp the dull surface of the blade near the shaft, and slide off the blade.
 - c. Place the blade in the bowl.
9. Lift the bowl cover off.
10. Remove the bowl.
11. Take the parts to the pot and pan sink.
12. Wash and rinse the parts. **Caution:** The blade never should be placed in the sink. Leave the blade on the drainboard where it can be seen clearly until you are ready to wash and rinse it.
13. Wash and rinse the motor base, using the wash and rinse cloths.
14. Allow it to air dry.
15. Reassemble the chopper.
 - a. Replace the bowl and rotate the bowl counterclockwise until it stops.
 - b. Place the knife on the knife shaft.
 - c. Screw the hand knob into position to hold the knife securely.
 - d. Place the comb in position. **Note:** Knives must move freely through the comb.
 - e. Replace the cover.
 - f. Close the cover and lock the safety catch.
16. Cover the chopper with a protective cloth or plastic sheet after each use.

DANGER

DANGER

Activity 3C (continued)
Practice Checklist:
Clean the Food Chopper

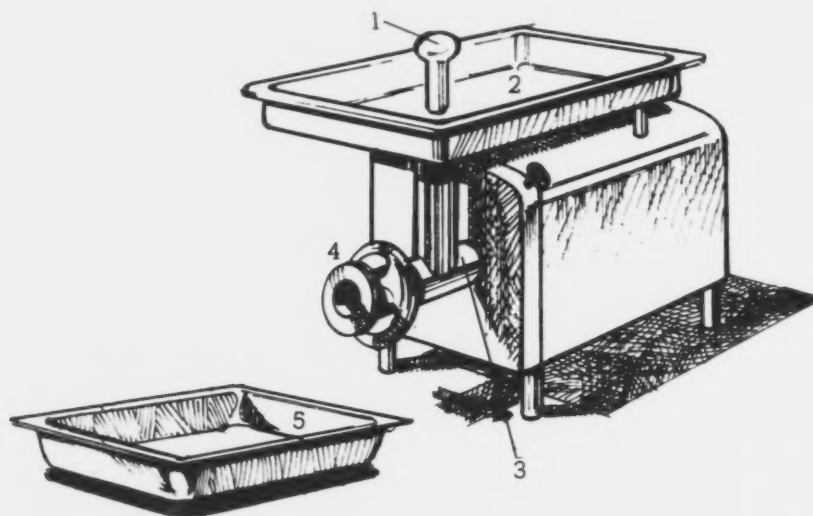
Standards for Evaluation

-
- ✓
1. Are all the parts clean and free from food particles or grease?
 2. Were all safety precautions followed?
 3. Were all sanitation procedures followed?
-

Information Sheet 4 The Food Grinder



Parts and Functions



1. **Feed stomper:** plastic utensil used to push food down into the grinder head
2. **Feed pan:** a pan that holds the food before it enters the grinder head
3. **Head:** a T-shaped metal body which houses the worm screw, knives, and plate
4. **Ring:** a screw on unit which holds the steel knives (blades) and plate onto the head
5. **Receiving tray:** a tray placed under the ring to catch the ground food

Use of the Food Grinder

The food grinder is used mainly for grinding meat and meat scraps into hamburger-like pieces. The size of the ground meat pieces is determined by the size of the holes in the perforated plate. Various size plates are available from the manufacturer. Large pieces of meat should be cut into strips before grinding to increase the speed and reduce the strain on the motor.

Optional attachments are available (similar to the ones described in Information Sheet 3: The Food Chopper) that can be connected directly to the motor to perform such tasks as slicing, dicing, shredding, and even knife sharpening.

A helpful tip: When cleaning the food grinder, pass bread crusts or ice cubes through the machine before taking it apart for washing. This helps remove the grease and small pieces of meat from inside the grinder head and its various parts. (Throw the chopped bread or ice away.)

Information Sheet 4 (continued)
The Food Grinder

**Operating and Cleaning
the Food Grinder**

The Practice Checklists in Activities 4B and 4C describe the step-by-step procedures for operating (4B) and cleaning (4C) the food grinder. Read and study these procedures before you practice the steps.

Activity 4A

The Food Grinder



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.

1. The size of the ground meat pieces after grinding is determined by _____.
 - the size of the holes in the perforated plate
 - the size of the meat in the feeder pan
 - the speed of the grinder motor
 - how fast the meat is fed into the grinder
2. To push food down into the grinder head, you should use _____.
 - your hand
 - a long-handled spatula
 - a plastic feed stomper
 - a long-handled wooden spoon
3. To increase speed when grinding meat, you should _____.
 - push harder on the feed stomper
 - cut large pieces of meat into smaller pieces
 - increase the speed of the motor
 - put bread and ice into the grinder



Check your answers in the back of this LAP. If you missed any, review Information Sheet 4.

Activity 4B

Practice Checklist: Operate the Food Grinder



Directions

First, read and study the steps for operating the food grinder. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.



Improper use of this equipment may be extremely hazardous. Before using it, discuss safety procedures with your instructor and consult the manufacturer's service manual. Keep the manufacturer's directions handy when first learning this skill.

Steps

- ✓
1. Plug the food grinder into a wall outlet.
2. Wash and dry your hands.
3. Get the receiving tray and meat strips and scraps for grinding.
4. Check the grinder plate size. Change the plate if necessary.
5. Place the meat strips and scraps into the feed pan.
6. Place the receiving tray under the ring.
7. Turn the grinder On.
8. Push some of the meat into the grinder head, using the feed stomper; apply firm, steady pressure. **Note:** The grinder works faster if you feed small quantities at a time rather than forcing large amounts through the head.
9. Catch the ground meat in the receiving tray.
10. When all the meat has been ground, turn the grinder Off.

Standards for Evaluation

- ✓
1. Was the meat ground to the proper size?
2. Was an appropriate amount of pressure applied with the feed stomper?
3. Were all safety precautions followed?
4. Were all sanitation procedures followed?

Activity 4C

Practice Checklist: Clean the Food Grinder



Directions

First, read and study the steps for cleaning the food grinder. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

- ✓
 1. Assemble these supplies near your work area: warm soapy water, a hand brush, 1 washing cloth, and 1 rinsing cloth.
 2. Turn the machine Off.
 3. Wait for the motor to stop.
 4. Unplug the food grinder.
 5. Remove the feed stomper from the head.
 6. Lift the feed pan off the head.
 7. Disconnect the grinder head from the motor base.
 8. Disassemble the grinder head completely.
 - a. Unscrew the ring.
 - b. Remove the perforated plate and knives.
 - c. Remove the auger (worm screw).
 8. Take the parts to the pot and pan sink.
 9. Wash and rinse the parts. **Caution:** Do not place knives or the plate in the sink. Leave them on drainboard until you are ready to wash and rinse them by hand. **Note:** Carefully inspect the cleaned parts for any missed pieces of meat or fat. You may need to use a small brush or ice pick to clean the holes in the plate.
 11. Wash and rinse the motor base, using the wash and rinse cloths.
 12. Allow the motor base to air dry completely.
 13. Reassemble grinder. **Note:** Be sure the parts are dry before putting the grinder together; if not, parts may start to rust and cause damage.
 - a. Replace the auger (worm screw).
 - b. Replace the plate knives.
 - c. Replace the perforated plate. Be sure that the notch on the plate is lined up correctly or the plate will not spin.
 - d. Screw the ring onto the head. Be sure it is very tight.
 - e. Connect the grinder head to the motor.
 - f. Replace the feed pan and stomper.

DANGER

Activity 4C (continued)
Practice Checklist:
Clean and Food Grinder

Standards for Evaluation

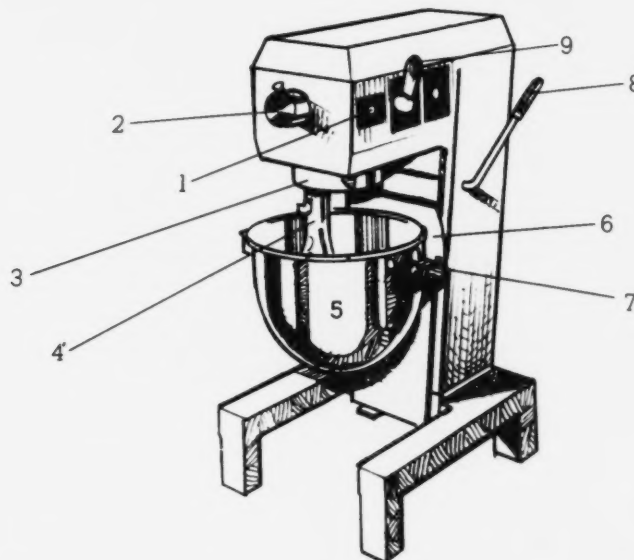
- ✓
-
1. Are all the parts clean and free from food particles or grease?
 2. Were all safety precautions followed?
 3. Were all sanitation procedures followed?
-

Information Sheet 5

The Mixer



Parts and Functions



1. **Power switch**—used to turn mixer on or off; some models also have a "stop brake" button, which brings the beater shaft to a stop when pushed after switching the mixer off
2. **Attachment hub**—site for connecting optional attachments such as a slicer, dicer, grinder, etc.
3. **Beater shaft**—site for connecting the agitator
4. **Agitator**—metal utensil which works the food; for example, beater, wire whip, dough hook, etc.
5. **Bowl**—metal container for food
6. **Bowl arms**—"arms" that hold the bowl in place
7. **Bowl safety lock**—used to lock the bowl into place
8. **Bowl raising lever**—lever used to raise and lower the bowl up to or away from the agitator
9. **Speed control**—lever or dial used to set or control speeds; usually there are 3 or 4 speeds, depending on model and size:
 - 1/low**—used for initial blending of all mixtures and for heavy mixtures like dough, heavy batters, and potatoes
 - 2/medium-low**—used for mixing cake batters, mashing potatoes, and developing dough
 - 3/medium-high**—used for incorporating air into light mixtures like egg whites and whipped cream
 - 4/high**—used like 3, but faster.

Information Sheet 5 (continued)

The Mixer

Models

There are two basic models of mixers:

The **bench mixer** usually sits on a table or a cabinet and is used for mixing fairly small amounts of food. Their bowls usually hold from 5-20 quarts.

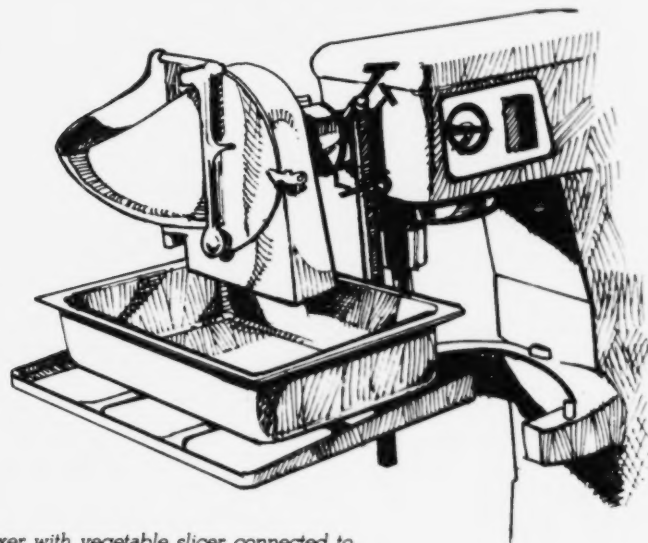
The **floor mixer** is mounted on the floor and is used for mixing large amounts of food. Their bowls hold from 20-140 quarts.

Optional Attachments

Several attachments are available for mixers, including a vegetable slicer, grater, shredder, dicer, french fry cutter, meat grinder, food chopper, coffee mill, fruit juice extractor, knife sharpener, strainer, and tray support. (Some of these attachments are pictured in Information Sheet 3: The Food Chopper.)

These accessories connect to the attachment hub at the front of the mixer. There are two basic sizes of attachment hubs for floor mixers. Number 12 size fits 20-60 quart mixers and number 22 size fits 60-140 quart mixers. Number 12 size accessories will not fit a Number 22 size attachment hub.

Check the manufacturer's service manual to identify the size of the attachment hub for your equipment.



Mixer with vegetable slicer connected to attachment hub and tray support for holding receiving pan.

Agitators

The consistency (thickness or thinness) of food you are working with will determine which agitator you will attach to the mixer. Four of the most common agitators and their uses are discussed here.

Information Sheet 5 (continued)

The Mixer



The flat beater is used for general mixing. It is generally used at medium speeds. Never use the flat beater on heavy doughs.

Use the flat beater for:

Mixing main dish items such as fish cakes, hamburgers, and meat loaf.

Mashing vegetables such as potatoes and squash.

Creaming mixtures such as butter and sugar for uncooked icings, making honey butter and sandwich spreads.

Mixing batters for muffins, cakes, and steamed puddings.



The wire whip is used for incorporating air into light mixtures. It is generally used at high speeds. Never use the wire whip for heavy mixtures.

Use the wire whip for:

Blending dry mixes

Whipping dry milk

Reconstituting dry milk

Beating egg whites

Whipping cream

Mixing light icings

Whipping meringue



The dough hook is used for mixing and kneading heavy doughs. It is generally used at low speeds.

Use the dough hook for mixing and kneading breads, rolls, and biscuits.



The pastry knife is used for cutting butter or shortening into flour. It is generally used at low speeds.

Use the pastry knife attachment for making shortcakes, flaky biscuits, and pie crusts.

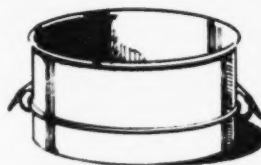
Information Sheet 5 (continued)

The Mixer

Additional Accessories

Some other accessories commonly used with the floor mixer are:

the bowl extension ring, which helps prevent food throw-out,



the splash cover, which prevents food from splashing out of the bowl, and



the bowl truck, which allows large mixing bowls to be rolled around the kitchen.



Operating and Cleaning the Mixer

The Practice Checklists found in Activities 5B and 5C describe the step-by-step procedures for operating (5B) and cleaning (5C) the mixer. Read and study the procedures before you practice the steps.

Activity 5A The Mixer



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.



1. Heavy dough mixtures for breads and rolls should be mixed at _____ speed.
 - low
 - medium-low
 - medium-high
 - high
2. For initial blending of all mixtures, use _____ speed until the ingredients are partially blended.
 - low
 - medium-low
 - medium-high
 - high
3. The agitator selected for a specific job is determined by the _____.
 - speed you have selected
 - size of the mixer
 - consistency (thickness or thinness) of the food
 - size of the bowl
4. The wire whip is used for _____.
 - mashing potatoes
 - beating egg whites
 - mixing bread dough
 - making biscuits
5. Use a _____ to mix cake batters.
 - pastry knife
 - wire whip
 - dough hook
 - flat beater
6. The pastry knife is best for cutting shortening into _____.
 - pie crusts
 - biscuits
 - shortcakes
 - pie crusts, biscuits, and shortcakes

Check your answers in the back of this LAP. If you missed any, review Information Sheet 5.

Activity 5B

Practice Checklist: Operate the Mixer



Directions

First, read and study the steps for operating the mixer. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Improper use of this equipment may be extremely hazardous. Before using it, discuss safety procedures with your instructor and consult the manufacturer's service manual. Keep the manufacturer's directions handy when first learning this skill.

DANGER

Steps

1. Plug the mixer into a wall outlet.
2. Wash and dry your hands.
3. Get the agitators, bowls, and food to be mixed.
4. Select the appropriate size bowl.
5. Place the bowl on the bowl arms.
6. Secure the safety locks or clamps.
7. Lower the bowl to the lowest level, using the raising lever.
8. Select the proper agitator.
9. Slide the agitator onto the beater shaft and lock it in place.
Note: Fit the slot in the agitator shaft over the pin extending from the beater shaft and twist it until the agitator is locked into position.
10. Place ingredients in the bowl. The bowl should be one-half to two-thirds full.
11. Raise the bowl to the desired height, using the raising lever. The agitator should not be touching the bowl.
12. Select the speed. **Note:** If you wish to change speeds, first stop the motor, then change the speed.
13. Turn the mixer On.
14. Stop the machine occasionally to scrape down the sides of the bowl. **Caution:** Never, never stick your hand or a utensil into the bowl while the mixer is on.
15. Turn the motor off when mixing is complete.
16. When the agitator has stopped completely, lower the bowl to floor level or to the level of the bowl truck.
17. Remove the agitator.
18. Remove the bowl.

DANGER

LAP 4.2
Proper Use and Care of
Miscellaneous Equipment

Activity 5B (continued)
Practice Checklist:
Operate the Mixer

Standards for Evaluation

- ✓
-
1. Are the ingredients properly mixed, not overmixed or undermixed?
 2. Were all safety precautions followed?
 3. Were all sanitation procedures followed?
-

Activity 5C

Practice Checklist: Clean the Mixer



Directions

First read and study the steps for cleaning the mixer. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY**. You may want to look at the information in the LAP to help you perform the task.

Steps

- ✓
1. Assemble these supplies near your work area: warm soapy water, a hand brush, a gong brush, 1 washing cloth, and 1 rinsing cloth.
2. **After each use, do the following:**
 - a. Turn the machine Off and unplug it.
 - b. Remove the agitator.
 - c. Remove the bowl.
 - d. Take the bowl and agitator to the pot and pan sink for cleaning.
 - e. Clean the bowl and agitator in warm soapy water.
 - f. Rinse the bowl and agitator.
 - g. Let the bowl and agitator air dry.
3. **At the end of each day, do the following:**
 - a. Wash the beater shaft in hot soapy water. **Caution:** Do not hose down the mixer.
 - b. Wash the bowl arms.
 - c. Wash the base.
 - d. Rinse the bowl arms and base, using a damp cloth.
 - e. Dry the bowl arms and base, using a clean, dry cloth.

DANGER

Standards for Evaluation

- ✓
1. Are all parts clean and free from food particles or grease?
2. Were all safety precautions followed?
3. Were all sanitation procedures followed?

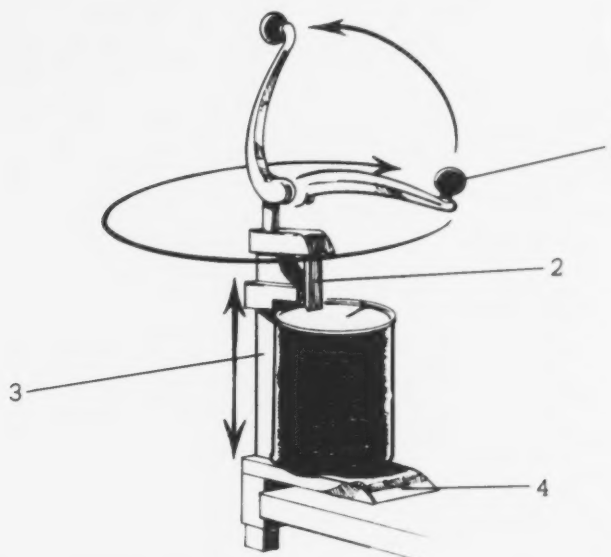
Information Sheet 6

The Can Opener



There are two basic types of can openers: manual and electric. Both types commonly are used in commercial kitchens. Both are designed to remove lids from varying sizes of cans.

Parts and Functions of a Bench-type Manual Can Opener



1. **Handle**—operating mechanism that moves up and down for puncturing the can lid and around, in a clockwise direction, for cutting the lid off



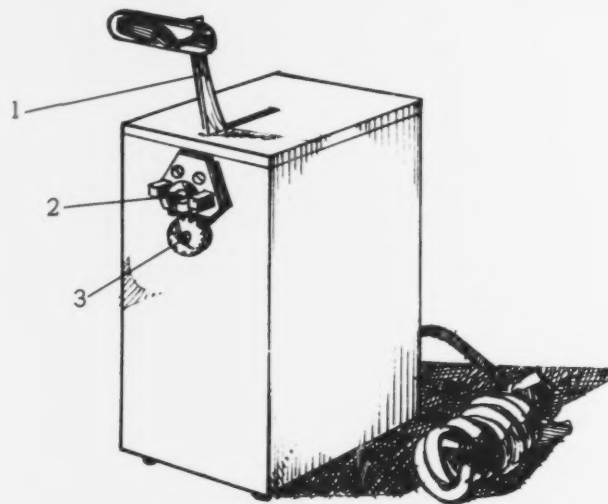
2. **Knife**—metal blade that punctures the can and cuts the metal lid off
3. **Sliding bar**—metal bar that slides up and down in the base plate to allow for different size cans
4. **Base plate**—base of the can opener, which attaches to a table to hold the sliding bar; may be secured either permanently with screws or temporarily with a thumb screw

Operating and Cleaning the Manual Can Opener

The Practice Checklists found in Activities 6B and 6C describe the step-by-step procedures for operating (6B) and cleaning (6C) the bench-type manual can opener. Read and study these procedures before you practice the steps.

Information Sheet 6 (continued) The Can Opener

Parts and Functions of an Electric Can Opener



1. **Starting lever:** lever which, when pushed down, presses the cutting wheel into the can lid and starts the motor
2. **Cutting wheel:** sharp-edged wheel that punctures the can lid and cuts around it
3. **Gear:** mechanism that grips the lip of the can and rotates the can

The electric can opener is easy to use and will save you time and strength, especially if you will be opening several cases of canned products at one time. They work quickly and require little physical effort.

Operating and Cleaning the Electric Can Opener

To operate the electric can opener, place the can against the opener with the lip of the can under the cutting wheel and above the gear. Press the starting lever to puncture the can, start the motor, and rotate the can against the cutting wheel. After each use, wipe the cutting wheel and gear clean, using a warm, damp cloth.

Thoroughly clean the parts of the can opener after each use. Food deposits left on the opener can cause bacterial contamination, off-flavors, and odors in food. Large deposits collecting on the cutting parts also can interfere with the can opener's operation.

Activity 6A The Can Opener



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.

1. The part on a manual can opener that actually punctures the can lid is called the _____.
 - cutting wheel
 - gear
 - knife
 - handle
2. An advantage of an electric can opener over a manual can opener is: _____.
 - it's cheaper in price
 - it has a reversible knife
 - it saves time and strength
 - it's self-cleaning
3. It is important to clean the can opener regularly in order to _____.
 - prevent bacterial contamination of food
 - prevent equipment malfunction
 - prevent off-flavors in food
 - prevent bacterial contamination, off-flavors, and equipment malfunction



Check your answers in the back of this LAP. If you missed any, review Information Sheet 6.

Activity 6B

Practice Checklist: Operate the Manual Can Opener



Directions

First, read and study the steps for operating the manual can opener. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and/or ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps



1. Get the cans to be opened and put them near the can opener.
2. Wash and dry your hands.
3. Clean the top of each can with a damp cloth.
4. Lift the handle to a vertical position.
5. Raise the sliding bar and slide the can onto the base.
6. Push the handle down quickly to force the knife to puncture the can lid. **Caution:** Do not put your hand near the knife blade.
7. Lower the handle to a horizontal position.
8. Turn the handle clockwise until the knife has cut completely around the lid.
9. Remove the lid and dispose of it properly.
10. Lift the handle to a vertical position.
11. Remove the can.
12. Lower the sliding bar into the base of the can opener.
13. Wipe the knife with a clean, damp cloth.

Standards for Evaluation

1. Is the can cut evenly, without sharp points or jagged edges?
2. Were all safety precautions followed?
3. Were all sanitation procedures followed?

Activity 6C
Practice Checklist:
Clean the Manual Can Opener



Directions

First, read and study the steps for cleaning the manual can opener. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

- ✓
1. Assemble these supplies in your work area: warm soapy water, a hand brush, 1 washing cloth, and 1 rinse cloth.
2. Remove the sliding bar assembly.
3. Take all parts of the assembly to the pot and pan sink.
4. Scrub the knife and other parts.
5. Rinse them.
6. Allow all the parts to air dry on a clean surface.
7. Inspect the knife for food particles.
8. If necessary, clean it again.
9. Scrub the base plate attached to the table, using warm soapy water and the hand brush.
10. Rinse the base plate, using the rinse cloth and clean water.
11. Allow the base plate to air dry.
12. Replace the sliding bar assembly on the base plate.

Standards for Evaluation

- ✓
1. Is each part clean and free from food particles.
2. Were all safety precautions followed?
3. Were all sanitation procedures followed?

Information Sheet 7 The Steam Table

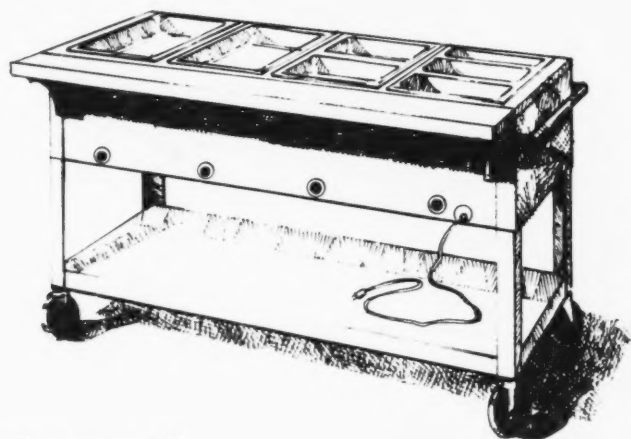
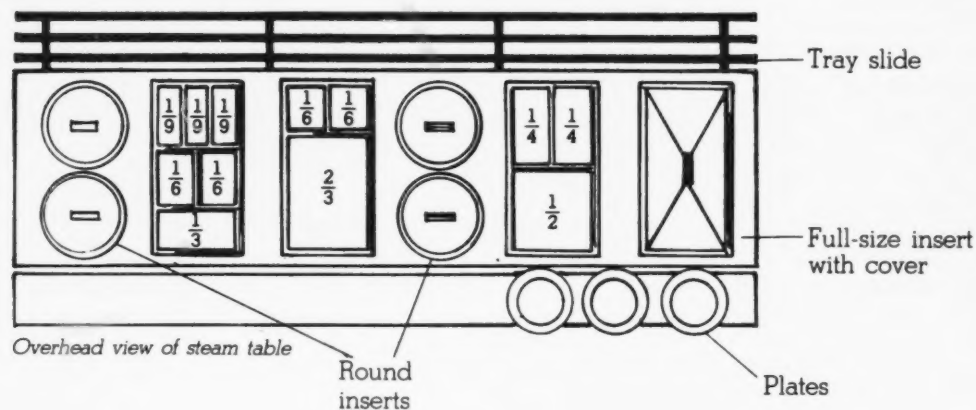


Use of the Steam Table

Steam tables are used to keep foods hot and ready for immediate service. Foods should be arranged on the steam table in the order in which they will be placed on the plate.

Parts and Their Functions

Examples of different sizes of inserts



Portable electric steam table

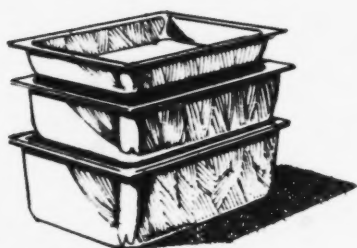
Metal pans called either steam table **inserts** or **hotel pans** come in many sizes and shapes. The most common steam table inserts are full-size pans (12" x 20"), half-size pans (12" x 10"), and one-third-size pans (12" x 6"). Other pans are two-thirds-size, one-sixth-size, and one-ninth-size pans, which can be arranged in different ways. The inserts come in depths of one, two, four, and six inches. A full-size pan that is six inches deep is called a six-inch full-size pan. A half-size pan that is two inches deep is called a two-inch half-size pan, and so on. (An adapter bar is needed when using the smaller pans.) **Round inserts** are used for serving gravies, soups, and

Information Sheet 7 (continued)

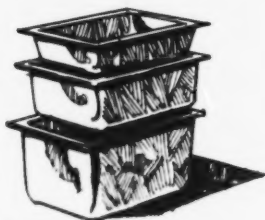
The Steam Table

sauces. Folding and solid metal **covers** are used with the inserts to prevent heat loss.

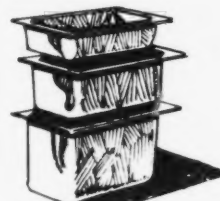
The inserts fit into holes on the top of the steam table. Beneath the pans, water heated by gas, electricity, or steam pipes produces steam, which keeps the food warm.



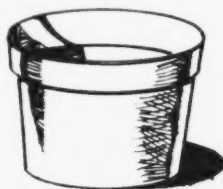
2-, 4-, & 6-inch
full-size pans



2-, 4-, & 6-inch
half-size pans

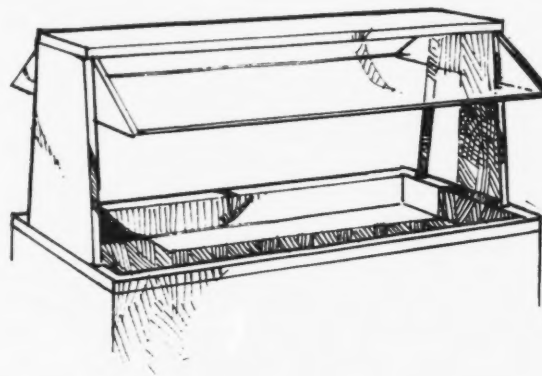
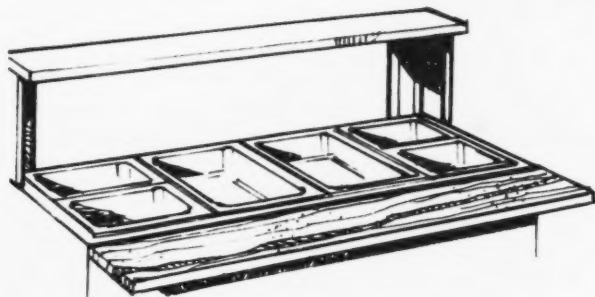


2-, 4-, & 6-inch
one-third-size pans



Round inserts

Steam tables come in several sizes but the most popular unit holds four full-size pans. Some models are stationary (stay in one place) while others have wheels and may be moved to wherever they are needed. Steam tables with wheels may be arranged most efficiently for a given meal. A variety of styles of clear plastic or glass protective shelves and covers, called sneeze guards, are available to cover the steam table. These protect the food from contamination by both guests and workers.



Different styles of protective covers and shelves

Information Sheet 7 (continued) The Steam Table

Things to Remember When Operating a Steam Table

To operate the steam table at maximum efficiency, remember these rules and tips:

1. Keep the water in the steam table tank hot enough to hold the food at a temperature of **140°F (60°C)** throughout the serving period. This will keep the food warm enough for eating—but not hot enough to burn one's mouth—and prevent the growth of bacterial germs that can lead to food poisoning. Most tables have thermostats to control the temperature.
2. Keep water at the proper temperature and do not allow it to get too hot. If water boils or gives off too much steam, it may dry out or overcook the food.
3. Use hot tap water to fill the steam table water tank. This will save time and fuel.
4. Keep the inserts on the steam table covered until it is time to serve. This helps prevent heat loss and contamination.



Caution: Another common type of food warmer uses dry electric heat. This waterless food warmer *does not* require water to heat the food. Be sure and ask your instructor which type of food warmer you will be using before you start the practice activities. Also, remember that when you work with steam tables or other hot equipment, you must be very careful and follow safety precautions.

Operating and Cleaning the Steam Table

The Practice Checklists found in Activities 7B and 7C describe the step-by-step procedures for operating (7B) and cleaning (7C) the steam table. Read and study the procedures before you practice the steps.

Activity 7A

The Steam Table



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.

1. The most common size steam tables hold _____ full-size inserts.
 - three
 - four
 - six
 - eight
2. Water in the steam table should be hot enough to keep the food at 140°F (60°C) to prevent _____.
 - overcooking
 - drying out
 - bacterial contamination
 - overcooking, drying out, and bacterial contamination
3. When filling the steam table with fresh tap water, it is best to use _____.
 - cold water—to start up the thermostat
 - first cold water, then hot water—so you don't damage the heating elements
 - hot water—to save time and fuel
 - any type of clean water available



Check your answers in the back of this LAP. If you missed any, review Information Sheet 7.

Activity 7B

Practice Checklist: Operate the Steam Table



Directions

First, read and study the steps for operating the steam table. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and/or ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.



Improper use of this equipment may be extremely hazardous.

Before using it, discuss safety procedures with your instructor and consult the manufacturer's service manual. Keep the manufacturer's directions handy when first learning this skill.

Steps

- ✓
1. Wash and dry your hands.
2. Make sure you have hot water handy or on tap, if needed.
3. **If you are using a moist heat steam table:**
 - a. Close the drain.
 - b. Add hot tap water to the desired level.
 - c. Turn the heating element On.
 - d. Reduce the heat when the water begins to boil. **Note:** Different foods require different holding temperatures on the steam table. Ask your instructor to recommend the appropriate temperature.
4. **If you are using a dry heat (electric) steam table:**
 - a. Turn on the heating element to the desired temperature.
 - b. **If required**, place a **steam pan** filled with water in the table well and then place the food pan in the steam pan. **Note:** Do not add water directly into the table well.

Standards for Evaluation

- ✓
1. Was the food held at the correct temperature?
2. Were all safety precautions followed?
3. Were all sanitation procedures followed?

Activity 7C

Practice Checklist: Clean the Steam Table



Directions

First, read and study the steps for cleaning the steam table. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

DANGER

DANGER

DANGER

1. Assemble these supplies in your work area: warm soapy water, a long-handled gong brush, buckets, clean cloths, and stainless steel polish.
2. **For moist wells, do the following after each use:**
 - a. Turn the steam table Off.
 - b. Drain the water. **Caution:** Steam and hot water both can cause severe burns.
 - c. Wash the front and back of the steam table.
 - d. Wash the top of steam table.
 - e. Wipe all surfaces dry.
3. **For moist wells, do the following after the last meal of the day:**
 - a. Turn the steam table Off.
 - b. Add detergent to the water in the steam well. **Caution:** Steam and hot water both can cause severe burns.
 - c. Scrub the inside of the steam table, using the long-handled gong brush.
 - d. Allow the solution to drain out.
 - e. Rinse the steam well.
 - f. Wipe the surrounding frame.
 - g. Wash the covers.
 - h. Rinse the covers.
 - i. Wash the front and back of the steam table.
 - j. Rinse the front and back of the table.
 - k. Wipe the surface dry.
 - l. Polish the surface, as needed. **Note:** In areas with hard water, steam tables should be delimed weekly.
4. **For dry heat (electric) tables, do the following after the last meal of the day:**
 - a. Turn the dry heat table Off.
 - b. Scrub the exterior of the well. **Caution:** Never allow water to come in contact with the heating elements.
 - c. Rinse the exterior with hot water.
 - d. Wash the cabinet and containers.
 - e. Wash the lids.

Activity 7C (continued)
Practice Checklist: Clean the Steam Table

Standards for Evaluation

- ✓
-
1. Are all the parts clean and free from food particles or grease?
 2. Were all safety precautions followed?
 3. Were all sanitation procedures followed?
-

Information Sheet 8

The Baker's Table



Parts and Functions of the Baker's Table

Baker's tables are specially built tables with thick wooden, usually maple, tops. The tops come in several thicknesses, from 1½-3 inches, with 1¾ inch being the most popular thickness. Most baker's tables have a 4- to 6-inch high curbing along the top rear and sides to prevent flour spillage. Rolling bins and sliding drawers are optional features that can be used for storing utensils and baking ingredients.



Cleaning the Baker's Table

The Practice Checklist in Activity 8 describes the step-by-step procedure for cleaning the baker's table. Read and study this procedure before you practice the steps.

Activity 8

Practice Checklist: Clean the Baker's Table



Directions

First, read and study the steps for cleaning the baker's table. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

- ✓
1. Assemble these supplies near your work area: a scraper, warm soapy water, a hand brush, a chemical sanitizer, and clean cloths.
2. **After each use and at end of the day, do the following:**
 - a. Scrape the table top with a scraper.
 - b. Remove all scrapings and dry flour.
 - c. Scrub the top and sides.
 - d. Rinse them.
 - e. Sanitize the top.
 - f. Let the top air dry.
 - g. Wipe each shelf with a clean, damp cloth.
3. **Weekly, do the following:**
 - a. Follow the same procedure used in daily cleaning.
 - b. Remove all utensils from the drawers.
 - c. Remove the drawers from the table.
 - d. Take the drawers to the pot and pan sink.
 - e. Scrub the drawers inside and out.
 - f. Rinse them.
 - g. Dry them.
 - h. Wash the drawer frames.
 - i. Rinse and wipe them dry.
 - j. Replace the drawers in the table.
 - k. Put the clean utensils back into the drawers.

Standards for Evaluation

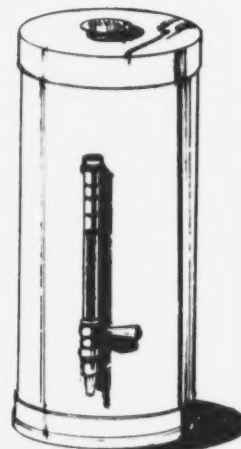
- ✓
1. Are all parts clean and free from food particles or grease?
2. Were all the safety precautions followed?
3. Were all sanitation procedures followed?



Vacuum coffee maker



Automatic drip coffee maker



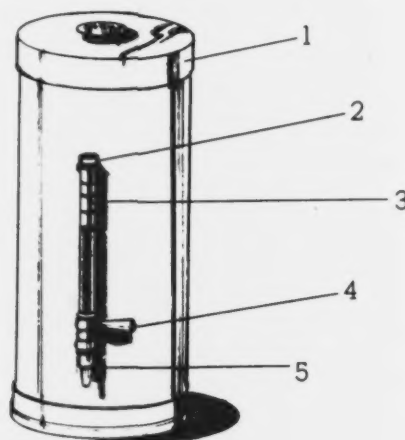
Urn coffee maker

Since coffee is one of the most popular beverages in the United States, it is understandable that there are numerous models of coffee makers made by a variety of manufacturers. However, there are three basic types of coffee makers found in the commercial kitchen: vacuum, automatic drip, and urn.

See LAP 5.3 *Beverages* for information on preparing coffee in each of these coffee makers and cleaning the vacuum and automatic drip coffee makers. Because vacuum and automatic drip coffee makers are relatively self-contained and cannot be disassembled easily (except by the manufacturer's service person), cleaning mainly involves washing and rinsing removable parts and wiping off the machine.

Remember, *whatever type* of coffee equipment you have, it is important to clean it thoroughly and regularly. If not, deposits (solid materials that settle to the bottom) form quickly, giving fresh coffee a bitter taste.

Parts and Functions Cover



Urn Coffee Maker

1. **Cover**—seals top of urn
2. **Gauge nut**—seals top of glass gauge
3. **Glass gauge**—graduated indicator shows amount of coffee or water present in urn
4. **Handle**—controls flow of coffee or water
5. **Spigot**—outlet to drain coffee or water from the urn

Filters

A coffee filter, also called a leacher, holds the coffee grounds and controls the amount of time that the hot water is in contact with the grounds. The filter also prevents the grounds from passing into the coffee reservoir. The filter fits inside the urn right under the cover and above the liquid. The pore size of the filter controls the strength of the brew. A filter may be either a disposable paper filter, a cloth bag, a metal strainer, or a perforated metal plate. Some filters can even be adjusted manually to control coffee strength.

A paper filter is placed inside the urn basket which supports the filter and grounds. When removing used grounds, handle the paper filter carefully to prevent it from tearing apart. Dispose of both paper filter and grounds.

Cloth filters or bags, when they are new, should be rinsed in 140°F (60°C) water to remove sizing. Rinse cloth filters in clean hot water after each use to remove coffee oils and sediment. Do not use soap, bleach, or detergent to clean the bag as this will affect the flavor of the next batch of coffee. After rinsing, urn bags or cloth filters should be stored in a container of fresh, cold water to prevent them from becoming rancid (sour) or picking up food odors. If a filter cloth does pick up an unusual odor, throw it away. Cloth filters or bags usually sit on top of or inside an urn basket, which is made

Information Sheet 9 (continued)
Coffee-Making Equipment

of metal wire and also should be rinsed after each use.

Metal strainers and perforated metal plates should be scrubbed and cleaned thoroughly each day. Be sure to rinse the plates carefully to remove all coffee grounds that may be stuck in the holes of the plate. If this is not done, it will reduce the drainage speed of the hot water, allowing it to remain in contact with the grounds longer, which produces a stronger brew.

For more specific information on how to clean and care for your coffee urn and filter type, consult the manufacturer's service manual.

**Cleaning the Urn
Coffee Maker**

The Practice Checklist in Activity 9B describes the step-by-step procedure for cleaning the urn coffee maker. Read and study the procedure before you practice the steps.

Activity 9A

Coffee-Making Equipment



Directions

On a separate sheet of paper, choose the best answer and write out the complete statement.



1. It is important to clean coffee equipment regularly and thoroughly, otherwise _____.
 - the equipment will break down rapidly
 - the coffee will develop a bitter taste
 - the coffee will be too weak
 - the grounds will fall into the coffee
2. Coffee filters are used to _____.
 - regulate the amount of time hot water contacts the grounds
 - prevent grounds from falling into the coffee
 - hold the coffee grounds in the top of the urn
 - regulate the amount of time hot water contacts the grounds, prevent grounds from falling into the coffee, and hold the grounds in the top of the urn
3. After each use, cloth filters should be washed in hot water and then stored in cold water until their next use to keep them from _____.
 - tearing apart at the seams
 - clogging up with coffee grounds
 - shrinking in size
 - becoming rancid (sour)
4. Metal strainers and perforated metal plates should be cleaned carefully each day to _____.
 - remove coffee grounds that may be stuck in the holes
 - prevent the coffee from picking up unusual flavors
 - prevent the coffee from becoming too strong
 - remove coffee grounds that may be stuck in the holes, prevent the coffee from picking up unusual flavors, and prevent the coffee from becoming too strong

Check your answers in the back of this LAP. If you missed any, review Information Sheet 9.

Activity 9B

Practice Checklist: Clean the Coffee Urn



Directions

First, read and study the steps for cleaning the coffee urn. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools and equipment you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Note: Keep the manufacturer's directions handy when first learning this skill.

Steps

1. Assemble these supplies near your work area: coffee urn, a hand brush, an urn cleaner, and a clean damp cloth.
2. **After each use, do the following:**
 - a. Lift the cover off the urn.
 - b. Remove the filter and used grounds.
 - c. Dispose of the grounds. If paper filter is used, dispose of paper filter.
 - d. Clean the filter.
 - e. Drain the urn.
 - f. Close the spigot.
 - g. Rinse the urn and drain rinse water completely out.
 - h. Close the spigot.
 - i. Prepare a new batch of coffee, as needed.
3. **At the end of the day, do the following:**
 - a. Do steps 2 a-h above.
 - b. Partially fill the urn with hot water.
 - c. Scrub the urn.
 - d. Drain the urn.
 - e. Flush the urn with hot water.
 - f. Clean the glass gauge, using a gauge brush.
 - (1) Remove the gauge nut.
 - (2) Insert the brush.
 - (3) Plunge it up and down.
 - (4) Rinse the gauge.
 - g. Clean the faucet (for automatics).
 - h. Partially fill the urn with fresh water.
 - i. Leave it until the next service time.
 - j. Wipe the outside of the urn.
 - k. Scrub the spigot.
 - l. Scrub the urn stand.
 - m. Wipe it dry.

Activity 9B (continued)
Practice Checklist: Clean the Coffee Urn

n. Leave the urn open at the top.

4. Weekly, do the following:

a. Do steps 2 a-h listed above.

b. Fill the urn $\frac{3}{4}$ full of hot water.

c. Add the manufacturer's recommended urn cleaner to the hot water. **Note:** Consult manufacturer's service manual for specific instructions on cleaning coffee equipment with an urn cleaner. Never use soaps, scouring powders, or other abrasives to clean the urn!

d. Let it stand for 30 minutes.

e. Scrub the insides of the urn and cover with the solution.

f. Drain the urn. Save some of the solution to use for cleaning other parts.

g. Clean the glass gauge, using a gauge brush and some cleaning solution.

(1) Remove the gauge nut.

(2) Insert the brush.

(3) Plunge brush up and down.

(4) Rinse the gauge.

h. Flush the urn several times with hot water until all discoloration is gone.

i. Partially fill the urn with fresh water.

j. Leave it until the next service time.

k. Wipe the outside of the urn

l. Scrub the spigot.

m. Scrub the urn stand.

n. Wipe it dry.

o. Leave the urn open at the top.

Standards for Evaluation

✓
1. Are all parts clean and free from oil or deposits?

2. Were all safety precautions followed?

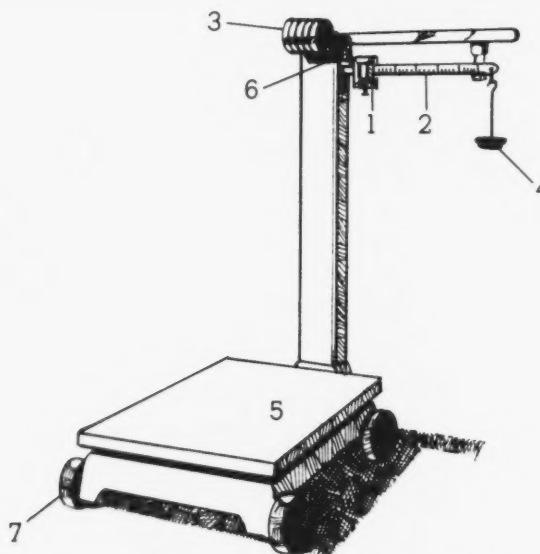
3. Were all sanitation procedures followed?

Information Sheet 10

The Platform Scale



Parts and Functions



1. **Incremental weight:** a weight that slides along the incremental scale bar
2. **Incremental scale bar:** bar with numbers written on it that registers increases by small amounts
3. **Counter weights:** round metal weights used for items weighing more than the maximum weight on the incremental scale
4. **Counter weight hanger:** hanger on which counter weights are placed
5. **Platform:** site on which items are placed for weighing
6. **Scale lock:** when set, prevents movement of incremental scale and platform
7. **Wheels:** used to move scale from place to place (optional)

Use of the Platform Scale

The platform scale is used in the receiving area for weighing products that come into the commercial kitchen. These weights are then checked against figures listed on the invoices.

Platform scales come in several different models with varying weight capacities. The most common weight capacities are 500 and 1000 pounds. Metric scales also are available from many manufacturers. Some scales have wheels (optional); others are stationary (do not move). Another optional feature is a bag rest.

Information Sheet 10 (continued)
The Platform Scale

Operating the Platform Scale

The Practice Checklist in Activity 10 describes the step-by-step procedure for operating the platform scale. Read and study the procedure before you practice the steps.

Activity 10

Practice Checklist: Operate the Platform Scale



Directions

First, read and study the steps for operating the platform scale. Next, write down the steps and the standards for evaluation for this task **on a separate sheet of paper**. Then, ask your instructor for the tools, equipment, and/or ingredients you will need to practice this skill. **FOLLOW THE STEPS CAREFULLY.** You may want to look at the information in the LAP to help you perform the task.

Steps

1. Assemble items to be weighed near the platform scale.
2. Unlock the scale.
3. Place the items to be weighed on the platform.
4. Adjust the weights until the scale balances to indicate the proper weight. **Note:** When weighing items, be careful not to stand on the scale. Stand directly in front of the scale to read the weight accurately.
5. Remove the items from the scale.
6. Lock the scale immediately. **Note:** Never leave platform scales unlocked.

Standards for Evaluation

1. Were the items weighed accurately?
2. Were all safety precautions followed?
3. Were all sanitation procedures followed?



**Activity 1: Safety,
Sanitation, and Costs**

1. When working with commercial cooking equipment and utensils, keep in mind sanitation, costs, and safety.
2. Safe working habits are important for yourself, your fellow workers, and your employers.
3. If you are ever uncertain as to the proper methods for operating or cleaning equipment, you should ask your supervisor for assistance.
4. When working with any type of food, cleanliness is essential in order to prevent the spread and growth of germs or disease.
5. Not following proper safety precautions and sanitary procedures in the commercial kitchen can be costly in terms of lost customers, damaged equipment, and injured workers.
6. Knowing how to operate equipment properly can save you time, energy, and money.
7. When working with equipment in a commercial kitchen, if you don't know what you're doing, don't do it.
8. Before using any type of kitchen equipment, thoroughly discuss safety precautions with your supervisor and consult the manufacturer's service manual.

Activity 2A: The Slicer

1. The slicer can be used to slice meat and cheese into neat even slices.
2. Cabbage and lettuce can be shredded on the slicer.
3. The thickness of the slice can be changed by adjusting the blade control indicator knob.
4. The blade control indicator knob should be turned clockwise as far as it will go after each use.
5. Cross stacking slices of food can prevent waste, save storage and handling time, and require practice.

Activity 3A: The Food Chopper

1. The food chopper is a valuable kitchen tool because it can save you energy, perform many tasks with the optional attachments, and save time.
2. To help chop and mix several foods together at one time, many food choppers have a rotating bowl.
3. The only time you put a utensil into the chopper bowl is when the chopper is turned off and the bowl and knives have stopped rotating.

Answer Keys for Written Activities (continued)

Activity 4A: The Food Grinder

1. The size of the ground meat pieces after grinding is determined by the size of the holes in the perforated plate.
2. To push food down into the grinder head, you should use a plastic feed stomper.
3. To increase speed when grinding meat, you should cut large pieces of meat into smaller pieces.

Activity 5A: The Mixer

1. Heavy dough mixtures for breads and rolls should be mixed at low speed.
2. For initial blending of all mixtures, use low speed until the ingredients are partially blended.
3. The agitator selected for a specific job is determined by the consistency (thickness or thinness) of the food.
4. The wire whip is used for beating egg whites.
5. Use a flat beater to mix cake batters.
6. The pastry knife is best for cutting shortening into pie crusts, biscuits, and shortcakes.

Activity 6A: The Can Opener

1. The part on a manual can opener that actually punctures the can lid is called the knife.
2. An advantage of an electric can opener over a manual can opener is: it saves time and strength.
3. It is important to clean the can opener regularly in order to prevent bacterial contamination, off flavors, and equipment malfunction.

Activity 7A: The Steam Table

1. The most common size steam tables hold four full-size inserts.
2. Water in the steam table should be hot enough to keep the food at 140° F (60° C) to prevent overcooking, drying out, and bacterial contamination.
3. When filling the steam table with fresh tap water, it is best to use hot water—to save time and fuel.

Activity 9A: Coffee-Making Equipment

1. It is important to clean coffee equipment regularly and thoroughly, otherwise the coffee will develop a bitter taste.

Answer Keys for Written Activities (continued)

2. Coffee filters are used to regulate the amount of time hot water contacts the grounds, prevent grounds from falling into the coffee, and hold the coffee grounds in the top of the urn.
3. After each use, cloth filters should be carefully washed in hot water and then stored in cold water until their next use to keep them from becoming rancid (sour).
4. Metal strainers and perforated metal plates should be cleaned carefully each day to remove coffee grounds that may be stuck in the holes, prevent the coffee from picking up unusual flavors, and prevent the coffee from becoming too strong.



State of Florida
Department of Education
Ralph D. Turlington, Commissioner of Education
Tallahassee, Florida
Affirmative action/equal opportunity employer

Division of Vocational, Adult, and Community Education

This public document was promulgated at a cost of \$2,557.11, or \$4.779 per copy, to provide Florida students and educators with competency-based commercial foods and culinary arts instructional materials.

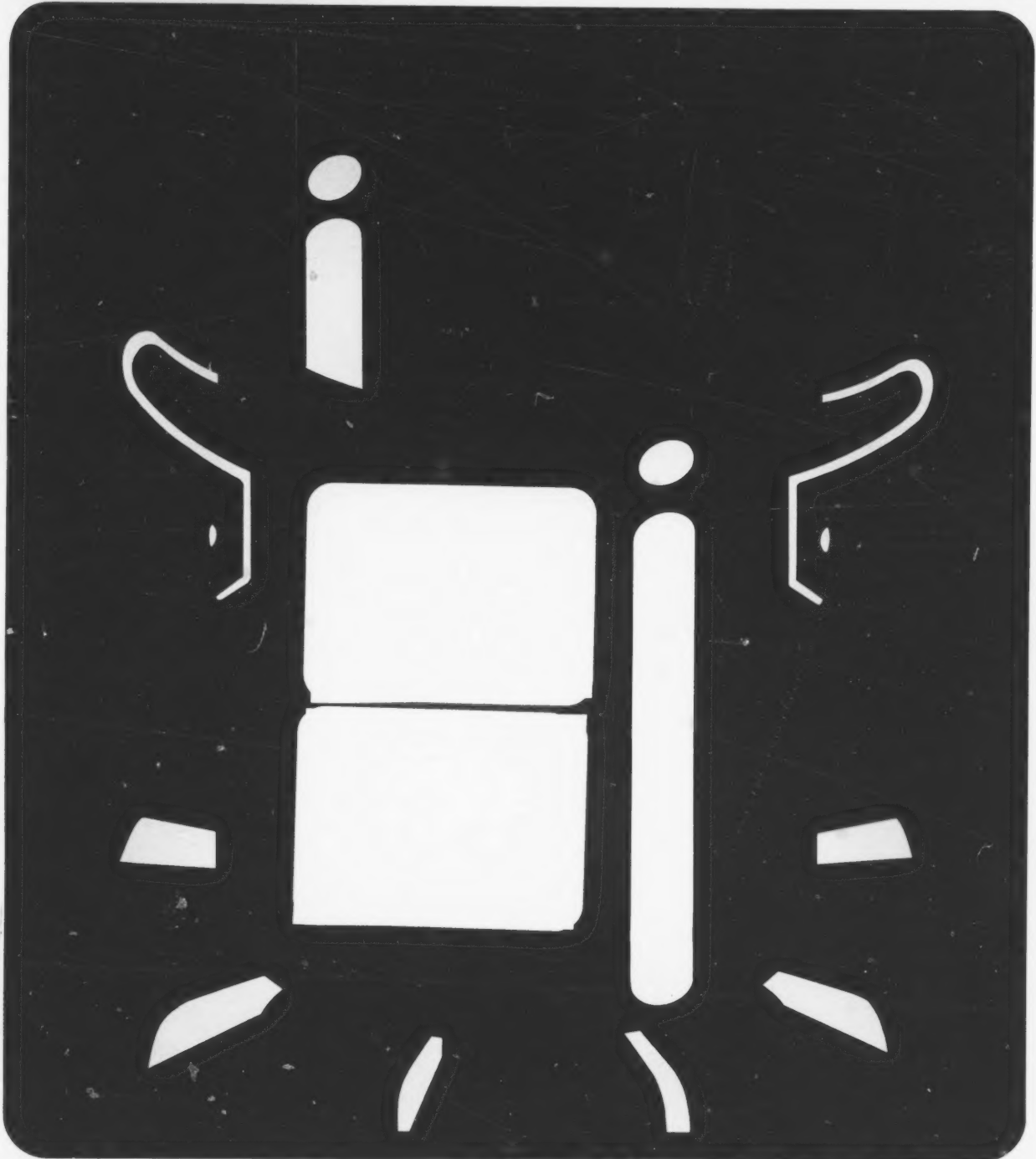
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INSTRUCTOR'S
GUIDE
LAP

4.2

Proper Use and Care of Miscellaneous Equipment

Equipment Handling, Operation, and Maintenance



Sponsored and published by:
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INSTRUCTOR'S
GUIDE
LAP

4.2

SECTION 4

Proper Use and Care of Miscellaneous Equipment

Equipment Handling, Operation, and Maintenance

State of Florida
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Tallahassee, Florida
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Division of Vocational, Adult, and Community Education

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Instructional Matrix

Directions

If you want to use only part of the materials in this LAP, use this matrix to help you select what you need.

Objectives	Instructional Materials	Practice and Feedback	Evaluation
Knowledge Objectives	Information Sheets	Written Activities	Written Test Items
1. Choose the correct phrases to complete statements about safety, sanitation, and costs. (All 8 must be correct.)	1: Safety, Sanitation, and Costs	1: Safety, Sanitation and Costs	Part I: 1-8
2. Choose the correct phrases to complete statements about the slicer. (All 5 must be correct.)	2: The Slicer	2A: The Slicer	Part II: 1-5
3. Choose the correct phrases to complete statements about the food chopper. (All 3 must be correct.)	3: The Food (Buffalo) Chopper	3A: The Food Chopper	Part III: 1-3
4. Choose the correct phrases to complete statements about the food grinder. (All 3 must be correct.)	4: The Food Grinder	4A: The Food Grinder	Part IV: 1-3
5. Choose the correct phrases to complete statements about the mixer. (All 6 must be correct.)	5: The Mixer	5A: The Mixer	Part V: 1-6
6. Choose the correct phrases to complete statements about the can opener. (All 3 must be correct.)	6: The Can Opener	6A: The Can Opener	Part VI: 1-3
7. Choose the correct phrases to complete statements about the steam table. (All 3 must be correct.)	7: The Steam Table	7A: The Steam Table	Part VII: 1-3
8. Choose the correct phrases to complete statements about coffee-making equipment. (All 4 must be correct.)	9: Coffee-Making Equipment	9A: Coffee-Making Equipment	Part VIII: 1-4

Instructional Matrix (continued)

Objectives	Instructional Materials	Practice and Feedback	Evaluation
Skill Objectives	Information Sheets	Practice Checklists	Skills Test Items
1. Operate the slicer. The slices must be the proper thickness or weight and must be whole. A rhythmic motion must be used.*	2: The Slicer	2B: Operate the Slicer	Part I: 1-4
2. Clean the slicer. All parts must be clean and free from food or grease.*	2: The Slicer	2C: Clean the Slicer	Part II: 1-3
3. Operate the food chopper. An appropriate amount of food must be placed in the chopping bowl and the food must be chopped to the desired size.*	3: The Food (Buffalo) Chopper	3B: Operate the Food Chopper	Part III: 1-4
4. Clean the food chopper. All parts must be clean and free from food or grease.*	3: The Food (Buffalo) Chopper	3C: Clean The Food Chopper	Part IV: 1-3
5. Operate the food grinder. The meat must be ground to proper size and appropriate pressure must be applied to the feed stomper.*	4: The Food Grinder	4B: Operate the Food Grinder	Part V: 1-4
6. Clean the food grinder. All parts must be clean and free from food or grease.*	4: The Food Grinder	4C: Clean the Food Grinder	Part VI: 1-3
7. Operate the mixer. The ingredients must be properly mixed.*	5: The Mixer	5B: Operate the Mixer	Part VII: 1-4
8. Clean the mixer. All parts must be clean and free from food or grease.*	5: The Mixer	5C: Clean the Mixer	Part VIII: 1-3
9. Operate the manual can opener. The can must be cut evenly, without sharp points or jagged edges.*	6: The Can Opener	6B: Operate the Manual Can Opener	Part IX: 1-3

*All safety precautions and sanitary procedures must be followed.

Instructional Matrix (continued)

Objectives	Instructional Materials	Practice and Feedback	Evaluation
Skill Objectives	Information Sheets	Practice Checklists	Skills Test Items
10. Clean the manual can opener. All parts must be clean and free from food particles.*	6: The Can Opener	6C: Clean the Manual Can Opener	Part X: 1-3
11. Operate the steam table. The food must be held at the correct temperature.*	7: The Steam Table	7B: Operate the Steam Table	Part XI: 1-3
12. Clean the steam table. All parts must be clean and free from food or grease.*	7: The Steam Table	7C: Clean the Steam Table	Part XII: 1-3
13. Clean the baker's table. All parts must be clean and free from food or grease.*	8: The Baker's Table	8: Clean the Baker's Table	Part XIII: 1-3
14. Clean the coffee urn. All parts must be clean and free from oil or deposits.*	9: Coffee-Making Equipment	9B: Clean the Coffee Urn	Part XIV: 1-3
15. Operate the platform scale. The items must be weighed accurately.*	10: The Platform Scale	10. Operate the Platform Scale	Part XV: 1-3

*All safety precautions and sanitary procedures must be followed.

Notes to the Instructor

General Notes

- This LAP is the second of five LAPs about commercial cooking equipment.
- Have the student complete LAP 4.1 before beginning this LAP.
- The Practice Checklists in this LAP provide the primary means of instruction for the activities described. Have the student read and study each checklist to learn the procedure before practicing the steps. Be prepared to give the students as much extra instruction/demonstration as they might need to practice these skills safely and efficiently.

OPPS

The materials in LAP 4.2 cover the following Florida **OPPS** (Occupational Proficiency Performance Standards):

Slice/cut vegetables and fruits.
Slice meats, cheeses, and other items.

V-TECS

The materials in LAP 4.2 cover the following areas of the Florida/**V-TECS** (Vocational Technical Education Consortium of States) *Commercial Cook* catalog:

Duty: Preparing and cooking sandwiches

Task: Slice meats, cheeses, and other items

Objective: Given chilled boneless meats, cheeses, or other items, a slicer, and a platter or one-half sheet pan, slice meats, cheeses, or other items. The slices must be uniform in size, shape, and thickness, and must have been sliced across the grain.

Career Map

The materials in LAP 4.2 cover or are related to the following Commercial Foods and Culinary Arts Career MAP (Career Merit Achievement Plan) competencies:

Operate grinders and tenderizers
Operate mixers and blenders
Operate slicing machines
Set up and monitor food warmers
Prepare sliced meats for cold buffet
Prepare cheese boards
Select, use, and maintain buffet equipment and utensils

Special Needs

There are no materials designed for educable mentally retarded/handicapped (EMR/EMH) or academically disadvantaged students that cover this information.

Suggested Instructional Procedures

Individual Instruction

If you choose to have the student(s) use this LAP as a self-paced, self-instructional unit, have the student(s) follow the learning steps in the LAP, as listed below.

Special Note: Remember, the Practice Checklists in this LAP provide the primary means of instruction for these activities. Have the student read and study each practice checklist to learn the procedure before practicing the steps. (Be prepared to give students additional instruction or demonstrations, as needed.)

Learning Steps in LAP 4.2

1. Read and study **Information Sheet 1:** Safety, Sanitation, and Costs.
2. Complete **Activity 1:** Safety, Sanitation, and Costs. Check your answers.
3. Read and study **Information Sheet 2:** The Slicer.
4. Complete **Activity 2A:** The Slicer. Check your answers.
5. Complete **Activity 2B:** Practice Checklist—Operate the Slicer. See the special note above.
6. Complete **Activity 2C:** Practice Checklist—Clean the Slicer. See the special note.
7. Read and study **Information Sheet 3:** The Food (Buffalo) Chopper.
8. Complete **Activity 3A:** The Food Chopper. Check your answers.
9. Complete **Activity 3B:** Practice Checklist—Operate the Food Chopper. See the special note.
10. Complete **Activity 3C:** Practice Checklist—Clean the Food Chopper. See the special note.
11. Read and study **Information Sheet 4:** The Food Grinder.
12. Complete **Activity 4A:** The Food Grinder. Check your answers.
13. Complete **Activity 4B:** Practice Checklist—Operate the Food Grinder. See the special note.
14. Complete **Activity 4C:** Practice Checklist—Clean the Food Grinder. See the special note.
15. Read and study **Information Sheet 5:** The Mixer.
16. Complete **Activity 5A:** The Mixer. Check your answers.

Suggested Instructional Procedures (continued)

17. Complete **Activity 5B**: Practice Checklist—Operate the Mixer. See the special note.
18. Complete **Activity 5C**: Practice Checklist—Clean the Mixer. See the special note.
19. Read and study **Information Sheet 6**: The Can Opener.
20. Complete **Activity 6A**: The Can Opener. Check your answers.
21. Complete **Activity 6B**: Practice Checklist—Operate the Manual Can Opener. See the special note.
22. Complete **Activity 6C**: Practice Checklist—Clean the Manual Can Opener. See the special note.
23. Read and study **Information Sheet 7**: The Steam Table.
24. Complete **Activity 7A**: The Steam Table. Check your answers.
25. Complete **Activity 7B**: Practice Checklist—Operate the Steam Table. See the special note.
26. Complete **Activity 7C**: Practice Checklist—Clean the Steam Table. See the special note.
27. Read and study **Information Sheet 8**: The Baker's Table.
28. Complete **Activity 8**: Practice Checklist—Clean the Baker's Table. See the special note.
29. Read and study **Information Sheet 9**: Coffee-Making Equipment.
30. Complete **Activity 9A**: Coffee-Making Equipment. Check your answers.
31. Complete **Activity 9B**: Practice Checklist—Clean the Coffee Urn. See the special note.
32. Read and study **Information Sheet 10**: The Platform Scale.
33. Complete **Activity 10**: Practice Checklist—Operate the Platform Scale. See the special note.
34. Get **Written Test 4.2** from your instructor and complete it. If you are successful, go on to Step 35; if not, talk with your instructor.
35. Have your instructor evaluate you on **Skills Test 4.2**. If you are successful, you have completed this LAP; if not, talk with your instructor.

Suggested Instructional Procedures (continued)

Group Instruction

If you choose to use this LAP as a unit of instruction for more than one student, the following teaching steps are suggested.

Teaching Steps for LAP 4.2

1. Introduce the subject of proper use and care of commercial cooking equipment and attachments.
2. Discuss the objectives in LAP 4.2.
3. Have each student read the information sheets and do the written activities in the LAP.
4. As a group, discuss the importance of safe work habits and keeping equipment clean and in proper working condition.
5. Take a tour of the kitchen and thoroughly discuss the parts and functions of each of the pieces of equipment discussed in this LAP.
6. Demonstrate the proper methods for operating and cleaning the pieces of equipment discussed in this LAP. Have students practice, with your assistance.
7. Divide the class into small groups of two or three students each and have them perform the Practice Checklist activities for each piece of equipment.
8. Give the students **Written Test 4.2** to complete. Evaluate the results, using the Answer Key in this Instructor's Guide. Make special arrangements for those who do not master this unit.
9. Use **Skills Test 4.2** to evaluate each student. Assign students who do not master tasks satisfactorily to practice more in the kitchen, with some assistance.
10. Use the additional instructional activities/enrichment with the group or with individual students.

Additional Instructional Activities/Enrichment

Suggested Readings

Haines, Robert G. *Food Preparation for Hotels, Restaurants, and Cafeterias*. 2nd ed. Alsip, Ill: American Technical Publishers, Inc., 1973.

Avery, Arthur C. *A Modern Guide to Foodservice Equipment*. Boston, Mass. CBI Publishing Company, Inc., 1980.

Wilkinson, Julie. *The Complete Book of Cooking Equipment*. 2nd ed. Boston, Mass. CBI Publishing Company, Inc., 1981.

Written Test 4.2

I. Safety, Sanitation, and Costs

Directions

Choose the correct phrase to complete each statement about safety, sanitation, and costs. Circle the letter beside the phrase.

1. Not following proper safety precautions and sanitary procedures in the commercial kitchen can be costly in terms of _____.
 - a. lost customers
 - b. damaged equipment
 - c. injured workers
 - d. all of the above
2. Thoroughly discuss safety precautions with your supervisor and consult the _____ before using any type of kitchen equipment.
 - a. vocational director
 - b. National Electrical Code
 - c. manufacturer's service manual
 - d. all of the above
3. Safe working habits are important for _____.
 - a. your employers
 - b. your fellow workers
 - c. yourself
 - d. all of the above
4. When working with equipment in a commercial kitchen, if you don't know what you're doing _____.
 - a. don't do it
 - b. make a guess
 - c. give it a try
 - d. talk a friend into doing it
5. When working with commercial cooking equipment and utensils, keep in mind _____.
 - a. costs
 - b. safety
 - c. sanitation
 - d. all of the above
6. When working with any type of food, _____ is essential in order to prevent the spread and growth of germs or disease.
 - a. sweeping
 - b. efficiency
 - c. cleanliness
 - d. safety
7. Knowing how to operate equipment properly can save you time, energy, and _____.
 - a. customers
 - b. money
 - c. experience
 - d. law suits

Written Test 4.2 (continued)

I. Safety, Sanitation, and Costs

8. If you are ever uncertain as to the proper methods for operating or cleaning equipment, you should _____.
- a. ask your friend how to do it
 - b. ask your supervisor for assistance
 - c. let someone else do it
 - d. try it but be very careful

Written Test 4.2 (continued)

II. The Slicer

Directions

Choose the correct phrase to complete each statement about the slicer. Circle the letter beside the phrase.

1. The thickness of the slice can be changed by adjusting the _____.
 - a. food holder
 - b. blade control indicator knob
 - c. blade guard
 - d. gauge plate
2. Cross stacking slices of food can _____.
 - a. prevent waste
 - b. save storage and handling time
 - c. require practice
 - d. all of the above
3. The blade control indicator knob should be turned clockwise as far as it will go _____.
 - a. before using the slicer
 - b. during each use
 - c. after each use
 - d. none of the above
4. The slicer can be used to slice _____ into neat even slices.
 - a. meat and cheese
 - b. fish and shellfish
 - c. cabbage and lettuce
 - d. all of the above
5. The slicer can be used to _____ cabbage and lettuce.
 - a. shred
 - b. dice
 - c. chop
 - d. mince

Written Test 4.2 (continued)

III. The Food Chopper

Directions

Choose the correct phrase to complete each statement about the food chopper. Circle the letter beside the phrase.

1. The only time you put a utensil into the chopper bowl is when _____.
 - a. food has caked on the side
 - b. the chopper is turned off and the bowl and knives have completely stopped rotating
 - c. food is falling over the sides
 - d. you are being very careful
2. The food chopper is a valuable kitchen tool because it can _____.
 - a. perform many tasks with optional attachments
 - b. save time
 - c. help you save energy
 - d. all of the above
3. The _____ on many food choppers helps chop and mix several foods together at one time.
 - a. power dicer
 - b. speed drive
 - c. rotating bowl
 - d. hub attachment

Written Test 4.2 (continued)

IV. The Food Grinder

Directions

Choose the correct phrase to complete each statement about the food grinder. Circle the letter beside the phrase.

1. You should use _____ to push food down into the grinder head.
 - a. the plastic feed stomper
 - b. a long-handled spatula
 - c. a long-handled wooden spoon
 - d. your hand (very carefully)
2. You should _____ to increase speed when grinding meat.
 - a. increase the speed of the motor
 - b. cut large pieces of meat into smaller pieces
 - c. push harder on the feed stomper
 - d. all of the above
3. The size of the pieces of ground meat is determined by _____.
 - a. the size of the meat in the feeder pan
 - b. the speed of the grinder motor
 - c. the size of the holes in the perforated plate
 - d. the speed the meat is fed into the grinder

Written Test 4.2 (continued)

V. The Mixer

Directions

Choose the correct phrase to complete each statement about the mixer. Circle the letter beside the phrase.

1. The agitator selected for a specific job is determined by the _____.
 - a. consistency of the food
 - b. speed you have selected
 - c. size of the mixer
 - d. all of the above
2. The wire whip is used for _____.
 - a. mixing bread dough
 - b. mashing potatoes
 - c. beating egg whites
 - d. all of the above
3. The pastry knife is best for cutting shortening into _____.
 - a. biscuits
 - b. pie crusts
 - c. shortcakes
 - d. all of the above
4. Heavy dough mixtures for breads and rolls should be mixed at _____ speed.
 - a. medium low
 - b. low
 - c. high
 - d. medium high
5. Use a _____ to mix cake batters.
 - a. wire whip
 - b. dough hook
 - c. flat beater
 - d. pastry knife
6. For initial blending of all mixtures, use _____ speed until the ingredients are partially blended.
 - a. high
 - b. medium high
 - c. medium low
 - d. low

Written Test 4.2 (continued)

VI. The Can Opener

Directions

Choose the correct phrase to complete each statement about the can opener. Circle the letter beside the phrase.

1. It is important to clean the can opener regularly in order to _____.
 - a. prevent bacterial contamination of food
 - b. prevent off-flavors in food
 - c. prevent equipment malfunction
 - d. all of the above
2. An advantage of an electric can opener over a manual can opener is: _____.
 - a. it has a reversible knife
 - b. it saves time and strength
 - c. it's cheaper in price
 - d. it's self cleaning
3. The part on a manual can opener that actually punctures the can lid is called the _____.
 - a. gear
 - b. handle
 - c. knife
 - d. cutting wheel

Written Test 4.2 (continued)

VII. The Steam Table

Directions

Choose the correct phrase to complete each statement about the steam table. Circle the letter beside the correct phrase.

1. The most common size steam tables will hold _____ full-size inserts.
 - a. eight
 - b. four
 - c. six
 - d. three
2. Water in the steam table should be hot enough to keep the food at 140°F (60°C) to prevent _____.
 - a. drying out
 - b. overcooking
 - c. bacterial contamination
 - d. all of the above
3. When filling the steam table with fresh tap water, you should use _____.
 - a. hot water—to save time and fuel
 - b. cold water—to start up the thermostat
 - c. first cold water, then hot water—so you won't damage the heating elements
 - d. any type of clean water available

Written Test 4.2 (continued)

VIII. Coffee-Making Equipment

Directions

Choose the correct phrase to complete each statement about coffee-making equipment. Circle the letter beside the correct phrase.

1. After each use, cloth filters should be carefully washed in hot water and then stored in cold water until their next use in order to keep them from _____.
 - a. becoming rancid (sour)
 - b. shrinking in size
 - c. tearing apart at the seams
 - d. clogging up with coffee grounds
2. It is important to clean coffee equipment regularly and thoroughly, otherwise _____.
 - a. the coffee will be too weak
 - b. the equipment will rapidly break down
 - c. the coffee will develop a bitter taste
 - d. all of the above
3. Metal strainers and perforated metal plates should be cleaned carefully each day to _____.
 - a. prevent the coffee from becoming too strong
 - b. prevent the coffee from picking up off flavors
 - c. remove coffee grounds that may be stuck in the holes
 - d. all of the above
4. Coffee filters are used to _____.
 - a. regulate the amount of time hot water contacts the grounds
 - b. prevent grounds from falling into the coffee
 - c. hold the coffee grounds in the top of the urn
 - d. all of the above

Answer Key for Written Test

Each section in the written test covers one objective and, therefore, should be evaluated separately. Criteria for evaluating each section are suggested below.

- I.** To master this objective the student should answer all of these correctly.
- | | |
|------|------|
| 1. d | 5. d |
| 2. c | 6. c |
| 3. d | 7. b |
| 4. a | 8. b |
- II.** To master this objective the student should answer all of these correctly.
1. b
 2. d
 3. c
 4. a
 5. a
- III.** To master this objective the student should answer all of these correctly.
1. b
 2. d
 3. c
- IV.** To master this objective the student should answer all of these correctly.
1. a
 2. b
 3. c
- V.** To master this objective the student should answer all of these correctly.
- | | |
|------|------|
| 1. a | 4. b |
| 2. c | 5. c |
| 3. d | 6. d |
- VI.** To master this objective the student should answer all of these correctly.
1. d
 2. b
 3. c
- VII.** To master this objective the student should answer all of these correctly.
1. b
 2. d
 3. a
- VIII.** To master this objective the student should answer all of these correctly.
- | | |
|------|------|
| 1. a | 3. d |
| 2. c | 4. d |

Skills Test 4.2

Proper Use and Care of Miscellaneous Equipment and Attachments

Student's Name _____ Date _____

The Student Can:

Yes No

I. Operate the Slicer.

1. Organized work area for efficient operation before beginning.

2. Produced an acceptable product.

Criteria: a. Slices are proper thickness and weight.

b. Slices are whole, not falling apart.

3. Followed procedures correctly.

Criteria: a. Used a rhythmic motion.

b. Followed safety precautions.

c. Followed sanitation procedures.

4. Cleaned work area well.

II. Clean the Slicer.

1. Organized work area for efficient operation before beginning.

2. Followed procedures correctly.

Criteria: a. Parts are clean and free from food or grease.

b. Followed safety precautions.

c. Followed sanitation procedures.

3. Cleaned work area well.

III. Operate the Food Chopper.

1. Organized work area for efficient operation before beginning.

2. Followed procedures correctly.

Criteria: a. Placed appropriate amount of food in bowl.

b. Followed safety precautions.

c. Followed sanitation procedures.

3. Produced an acceptable product. Criteria: Food is chopped to appropriate size.

4. Cleaned work area well.

IV. Clean the Food Chopper.

1. Organized work area for efficient operation before beginning.

2. Followed procedures correctly.

Criteria: a. All parts are clean and free from food or grease.

b. Followed safety precautions.

c. Followed sanitation procedures.

3. Cleaned work area well.

Skills Test 4.2 (continued)

Proper Use and Care of Miscellaneous Equipment and Attachments

The Student Can:

Yes No

V. Operate the Food Grinder.

1. Organized work area for efficient operation before beginning. _____
2. Produced an acceptable product. Criteria: Meat was ground to proper size. _____
3. Followed procedures correctly. _____
 Criteria: a. Applied appropriate amount of pressure to feed stomper. _____
 b. Followed safety precautions. _____
 c. Followed sanitation procedures. _____
4. Cleaned work area well. _____

VI. Clean the Food Grinder.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
 Criteria: a. Parts are clean and free from grease and food. _____
 b. Followed safety precautions. _____
 c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

VII. Operate the Mixer.

1. Organized work area for efficient operation before beginning. _____
2. Produced an acceptable product. Criteria: Ingredients are mixed properly, not over-mixed or undermixed. _____
3. Followed procedures correctly. _____
 Criteria: a. Followed safety precautions. _____
 b. Followed sanitation procedures. _____
4. Cleaned work area well. _____

VIII. Clean the Mixer.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
 Criteria: a. Parts are clean and free from food or grease. _____
 b. Followed safety precautions. _____
 c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

IX. Operate the Manual Can Opener.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
 Criteria: a. Can is cut evenly, without sharp points or jagged edges. _____
 b. Followed safety precautions. _____
 c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

Skills Test 4.2 (continued)

Proper Use and Care of Miscellaneous Equipment and Attachments

The Student Can:

Yes No

X. Clean the Manual Can Opener.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
Criteria: a. Parts are clean and free from food or grease. _____
b. Followed safety precautions. _____
c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

XI. Operate the Steam Table.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
Criteria: a. Held food at acceptable temperature. _____
b. Followed safety precautions. _____
c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

XII. Clean the Steam Table.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
Criteria: a. Parts are clean and free from food or grease. _____
b. Followed safety precautions. _____
c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

XIII. Clean the Baker's Table.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
Criteria: a. Parts are clean and free from food or grease. _____
b. Followed safety precautions. _____
c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

XIV. Clean the Coffee Urn.

1. Organized work area for efficient operation before beginning. _____
2. Followed procedures correctly. _____
Criteria: a. Parts are clean and free from oil and deposits. _____
b. Followed safety precautions. _____
c. Followed sanitation procedures. _____
3. Cleaned work area well. _____

Skills Test 4.2 (continued)

**Proper Use and Care of Miscellaneous Equipment and
Attachments**

The Student Can:

Yes No

XV. Operate the Platform Scale.

1. Organized work area for efficient operation before beginning.

2. Followed procedures correctly.

Criteria: a. Items were weighed correctly.

b. Followed safety precautions.

c. Followed sanitation procedures.

3. Cleaned work area well.



State of Florida
Department of Education
Ralph D. Turlington, Commissioner of Education
Tallahassee, Florida
Affirmative action/equal opportunity employer

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